

Replication File for ‘Finessing the Hobbesian Dilemma’ Paper

Anonymous for Reviewers

10/16/2021

1. Preparation: Full Dataset

```
# Given that readxl and DescTools packages are installed,  
# call them using library function
```

```
library("readxl")
```

```
## Warning: package 'readxl' was built under R version 4.0.3
```

```
library("DescTools")
```

```
## Warning: package 'DescTools' was built under R version 4.0.4
```

Read the .xlsx file into R.

```
# Note that I have manually hard copied the data from the  
# master workbook (with lots of formulas) into the single  
# page of a new workbook without any formulas
```

```
# VERSION: 20 April 2021
```

```
aosa <- read_excel("C:/Users/vanhe/Desktop/Academic Papers/2. Finessing the Hobbesian Dilemma/aosa_data.xlsx")
```

Delete all the “Error Check” and “Flag” columns.

```
# This code deletes all columns with 'Error Check' and 'Flag'  
# in the name
```

```
aosa <- aosa[, -c(grep("Error Check", colnames(aosa)), grep("Flag",  
  colnames(aosa)))]
```

Make sure the Armed Group External Support variables are all characters.

```
aosa$agextsupport_general_country3 <- as.character(aosa$agextsupport_general_country3)
```

```
aosa$agextsupport_general_country4 <- as.character(aosa$agextsupport_general_country4)
```

```
aosa$agextsupport_alleged_country4 <- as.character(aosa$agextsupport_alleged_country4)
```

```
summary(aosa)
```

```
##      agname          obsyear      fullname      agnameobsyear  
## Length:4138      Min.   :1946  Length:4138  Length:4138  
## Class :character  1st Qu.:1982  Class :character  Class :character  
## Mode  :character  Median :1997  Mode  :character  Mode  :character
```

```

##          Mean    :1994
##          3rd Qu.:2008
##          Max.    :2019
##
##   altaname      altfullname      narrative_name      narrative_year_compl
## Length:4138    Length:4138        Length:4138        Min.    :2015
## Class :character Class :character    Class :character    1st Qu.:2017
## Mode  :character Mode  :character    Mode  :character    Median :2017
##                                          Mean   :2017
##                                          3rd Qu.:2018
##                                          Max.   :2020
##
##   mainID      UCDPActorID      UCDPsideBID      UCDPDyadicID
## Min.    : 164    Min.    :-999.0    Min.    :-999.0    Min.    : -999
## 1st Qu.:1358    1st Qu.: -999.0    1st Qu.: -999.0    1st Qu.: -999
## Median :2566    Median : 195.0    Median : 180.0    Median :  428
## Mean   :2522    Mean   : 172.8    Mean   :-123.9    Mean   :  556
## 3rd Qu.:3709    3rd Qu.: 325.0    3rd Qu.: 316.0    3rd Qu.:  709
## Max.   :4778    Max.   :6329.0    Max.   :6692.0    Max.   :15069
##
##   UCDPConflictID      Country      stateprovince      stateprovince2
## Min.    : -999.00    Length:4138    Length:4138        Length:4138
## 1st Qu.: -999.00    Class :character    Class :character    Class :character
## Median :  222.00    Mode  :character    Mode  :character    Mode  :character
## Mean   :   37.74
## 3rd Qu.:  322.00
## Max.   :13349.00
##
##   state-level      startdate      startdateprec      interregna
## Min.    :0.0000    Min.    :1946    Min.    :1.000    Min.    :0.000000
## 1st Qu.:0.0000    1st Qu.:1964    1st Qu.:2.000    1st Qu.:0.000000
## Median :0.0000    Median :1977    Median :3.000    Median :0.000000
## Mean   :0.1585    Mean   :1977    Mean   :2.659    Mean   :0.002417
## 3rd Qu.:0.0000    3rd Qu.:1992    3rd Qu.:3.000    3rd Qu.:0.000000
## Max.   :1.0000    Max.   :2016    Max.   :3.000    Max.   :1.000000
##                                          NA's    :1
##   leftist      religious      linguistic      tribal
## Min.    :0.000    Min.    :0.0000    Min.    :0.0000    Min.    :0.0000
## 1st Qu.:0.000    1st Qu.:0.0000    1st Qu.:0.0000    1st Qu.:0.0000
## Median :0.000    Median :0.0000    Median :0.0000    Median :0.0000
## Mean   :0.303    Mean   :0.3103    Mean   :0.4094    Mean   :0.3101
## 3rd Qu.:1.000    3rd Qu.:1.0000    3rd Qu.:1.0000    3rd Qu.:1.0000
## Max.   :1.000    Max.   :1.0000    Max.   :1.0000    Max.   :1.0000
##
##   ID_ideology      AG_cleavage      religion_spec      agselfID
## Length:4138        Length:4138        Length:4138        Min.    :1.000
## Class :character    Class :character    Class :character    1st Qu.:2.000
## Mode  :character    Mode  :character    Mode  :character    Median :3.000
##                                          Mean   :2.728
##                                          3rd Qu.:3.000
##                                          Max.   :4.000
##
##   agselfID_chg      agselfID_prechg      agselfID_chgfilter      aggoals
## Min.    :0.000000    Min.    :0.000000    Min.    :0.000000    Min.    :0.000

```

```

## 1st Qu.:0.000000 1st Qu.:0.000000 1st Qu.:0.00000 1st Qu.:1.000
## Median :0.000000 Median :0.000000 Median :0.00000 Median :2.000
## Mean :0.008941 Mean :0.008941 Mean :0.01764 Mean :2.134
## 3rd Qu.:0.000000 3rd Qu.:0.000000 3rd Qu.:0.00000 3rd Qu.:4.000
## Max. :1.000000 Max. :1.000000 Max. :1.00000 Max. :5.000
##
## aggoals2 armedorder aoconf aochange
## Min. :0.000 Min. :1.000 Min. :1.000 Min. : -999.000
## 1st Qu.:0.000 1st Qu.:2.000 1st Qu.:2.000 1st Qu.: 0.000
## Median :0.000 Median :2.000 Median :3.000 Median : 0.000
## Mean :0.202 Mean :2.884 Mean :2.473 Mean : -2.834
## 3rd Qu.:0.000 3rd Qu.:4.000 3rd Qu.:3.000 3rd Qu.: 0.000
## Max. :5.000 Max. :5.000 Max. :3.000 Max. : 1.000
##
## neworder different_ao_from_previous VtoNV
## Min. : -999.0 Min. :0.0000 Min. :0.00000
## 1st Qu.: -999.0 1st Qu.:0.0000 1st Qu.:0.00000
## Median : -999.0 Median :0.0000 Median :0.00000
## Mean : -935.6 Mean :0.1141 Mean :0.03407
## 3rd Qu.: -999.0 3rd Qu.:0.0000 3rd Qu.:0.00000
## Max. : 5.0 Max. :1.0000 Max. :1.00000
##
## pre_VtoNV VtoNV_filter NVtoV pre_NVtoV
## Min. :0.00000 Min. :0.00000 Min. :0.00000 Min. :0.00000
## 1st Qu.:0.00000 1st Qu.:0.00000 1st Qu.:0.00000 1st Qu.:0.00000
## Median :0.00000 Median :0.00000 Median :0.00000 Median :0.00000
## Mean :0.03407 Mean :0.06622 Mean :0.02997 Mean :0.02997
## 3rd Qu.:0.00000 3rd Qu.:0.00000 3rd Qu.:0.00000 3rd Qu.:0.00000
## Max. :1.00000 Max. :1.00000 Max. :1.00000 Max. :1.00000
##
## NVtoV_filter LCfifthyear LCfiveprevyears LCfiveyr_filter
## Min. :0.00000 Min. :0.0000 Min. :0.0000 Min. :0.0000
## 1st Qu.:0.00000 1st Qu.:0.0000 1st Qu.:0.0000 1st Qu.:0.0000
## Median :0.00000 Median :0.0000 Median :0.0000 Median :0.0000
## Mean :0.05752 Mean :0.1399 Mean :0.1986 Mean :0.2182
## 3rd Qu.:0.00000 3rd Qu.:0.0000 3rd Qu.:0.0000 3rd Qu.:0.0000
## Max. :1.00000 Max. :1.0000 Max. :1.0000 Max. :1.0000
##
## LCtenthyear LCtenprevyears LCtenyr_filter LCfifteenthyear
## Min. :0.00000 Min. :0.0000 Min. :0.0000 Min. :0.00000
## 1st Qu.:0.00000 1st Qu.:0.0000 1st Qu.:0.0000 1st Qu.:0.00000
## Median :0.00000 Median :0.0000 Median :0.0000 Median :0.00000
## Mean :0.06815 Mean :0.1339 Mean :0.1421 Mean :0.03577
## 3rd Qu.:0.00000 3rd Qu.:0.0000 3rd Qu.:0.0000 3rd Qu.:0.00000
## Max. :1.00000 Max. :1.0000 Max. :1.0000 Max. :1.00000
##
## LCfifteenprevyears LCfifteenyr_filter LCtwentiethyear LCtwentyprevyears
## Min. :0.00000 Min. :0.00000 Min. :0.00000 Min. :0.00000
## 1st Qu.:0.00000 1st Qu.:0.00000 1st Qu.:0.00000 1st Qu.:0.00000
## Median :0.00000 Median :0.00000 Median :0.00000 Median :0.00000
## Mean :0.09232 Mean :0.09667 Mean :0.01909 Mean :0.06259
## 3rd Qu.:0.00000 3rd Qu.:0.00000 3rd Qu.:0.00000 3rd Qu.:0.00000
## Max. :1.00000 Max. :1.00000 Max. :1.00000 Max. :1.00000
##

```

```

## LCtwentyyr_filter  terminate      terminateform      absorptiongroup
## Min.   :0.00000  Min.   :0.00000  Min.   : -999.0000  Length:4138
## 1st Qu.:0.00000  1st Qu.:0.00000  1st Qu.:  0.0000   Class :character
## Median :0.00000  Median :0.00000  Median :  0.0000   Mode  :character
## Mean   :0.06501  Mean   :0.03939  Mean   : -0.1733
## 3rd Qu.:0.00000  3rd Qu.:0.00000  3rd Qu.:  0.0000
## Max.   :1.00000  Max.   :1.00000  Max.   :  5.0000
##
## peacedealsonset    peacedealongoing  ceasefireonset     ceasefireongoing
## Min.   :0.000000  Min.   :0.00000  Min.   : -999.000  Min.   : -999.000
## 1st Qu.:0.000000  1st Qu.:0.00000  1st Qu.:  0.000   1st Qu.:  0.000
## Median :0.000000  Median :0.00000  Median :  0.000   Median :  0.000
## Mean   :0.005075  Mean   :0.02102  Mean   : -3.853   Mean   : -3.748
## 3rd Qu.:0.000000  3rd Qu.:0.00000  3rd Qu.:  0.000   3rd Qu.:  0.000
## Max.   :1.000000  Max.   :1.00000  Max.   :  1.000   Max.   :  1.000
##                                     NA's   :13       NA's   :13
## amnesty            agreementonset     dealonset          dealNVonset
## Min.   :0.000000  Min.   :0.00000  Min.   :0.00000  Min.   :0.00000
## 1st Qu.:0.000000  1st Qu.:0.00000  1st Qu.:0.00000  1st Qu.:0.00000
## Median :0.000000  Median :0.00000  Median :0.00000  Median :0.00000
## Mean   :0.005091  Mean   :0.02658  Mean   :0.03166  Mean   :0.05607
## 3rd Qu.:0.000000  3rd Qu.:0.00000  3rd Qu.:0.00000  3rd Qu.:0.00000
## Max.   :1.000000  Max.   :1.00000  Max.   :1.00000  Max.   :1.00000
## NA's   :13
## dealterminate      agpolwing          polpar             pargov
## Min.   : -999.0  Min.   : -999.000  Min.   : -999.00  Min.   : -999.00
## 1st Qu.: -999.0  1st Qu.:  0.000   1st Qu.:  0.00   1st Qu.:  0.00
## Median :  0.0    Median :  0.000   Median :  0.00   Median :  0.00
## Mean   : -269.1  Mean   : -3.279   Mean   : -29.36  Mean   : -24.99
## 3rd Qu.:  0.0    3rd Qu.:  1.000   3rd Qu.:  2.00   3rd Qu.:  0.00
## Max.   :  1.0    Max.   :  1.000   Max.   :  3.00   Max.   :  3.00
## NA's   :13      NA's   :10       NA's   :136     NA's   :113
## party_polwing      party_polpar        polwing_polpar     govsuccess
## Min.   :0.0000    Min.   :0.0000    Min.   :0.000    Min.   :0.00000
## 1st Qu.:0.0000    1st Qu.:0.0000    1st Qu.:2.000    1st Qu.:0.00000
## Median :0.0000    Median :0.0000    Median :4.000    Median :0.00000
## Mean   :0.2405    Mean   :0.2293    Mean   :3.007    Mean   :0.09618
## 3rd Qu.:0.0000    3rd Qu.:0.0000    3rd Qu.:4.000    3rd Qu.:0.00000
## Max.   :2.0000    Max.   :2.0000    Max.   :4.000    Max.   :1.00000
##
## agillicit          agtax              agextsupport_general
## Min.   : -999.00  Min.   : -999.00  Min.   :0.0000
## 1st Qu.:  0.00    1st Qu.:  0.00    1st Qu.:0.0000
## Median :  0.00    Median :  0.00    Median :0.0000
## Mean   : -74.59   Mean   : -79.77   Mean   :0.1639
## 3rd Qu.:  0.00    3rd Qu.:  0.00    3rd Qu.:0.0000
## Max.   :  1.00    Max.   :  1.00    Max.   :1.0000
## NA's   :205      NA's   :205      NA's   :1
## agextsupport_general_country agextsupport_general_country2
## Length:4138          Length:4138
## Class :character     Class :character
## Mode  :character     Mode  :character
##
##

```

```

##
##
## agextsupport_general_country3 agextsupport_general_country4
## Length:4138          Length:4138
## Class :character      Class :character
## Mode :character       Mode :character
##
##
##
##
## agextsupport_alleged agextsupport_alleged_country
## Min. : -999.000      Length:4138
## 1st Qu.: 0.000      Class :character
## Median : 0.000      Mode :character
## Mean : -5.416
## 3rd Qu.: 0.000
## Max. : 1.000
##
## agextsupport_alleged_country2 agextsupport_alleged_country3
## Length:4138          Length:4138
## Class :character      Class :character
## Mode :character       Mode :character
##
##
##
##
## agextsupport_alleged_country4 extsupport_notes
## Length:4138          Length:4138
## Class :character      Class :character
## Mode :character       Mode :character
##
##
##
##

```

1.A. Descriptive statistics of “raw” dataset

```
# Earliest year
```

```
min(aosa$obsyear)
```

```
## [1] 1946
```

```
# Latest year
```

```
max(aosa$obsyear)
```

```
## [1] 2019
```

```
# Countries
```

```
length(unique(aosa$Country))
```

```
## [1] 7
```

```

# Dyads
length(unique(aosa$agname))

## [1] 241
# Dyad-Years
length(aosa$agname)

## [1] 4138
## Total War as % of Dyad-Years
round(length(aosa[aosa$armedorder == 1, ]$agname)/length(aosa$agname),
2)

## [1] 0.12
## Containment as % of Dyad-Years
round(length(aosa[aosa$armedorder == 2, ]$agname)/length(aosa$agname),
2)

## [1] 0.44
## Hostilities as % of Dyad-Years
round(length(aosa[aosa$armedorder == 3, ]$agname)/length(aosa$agname),
2)

## [1] 0.01
## Containment as % of Dyad-Years
round(length(aosa[aosa$armedorder == 4, ]$agname)/length(aosa$agname),
2)

## [1] 0.3
## Alliance as % of Dyad-Years
round(length(aosa[aosa$armedorder == 5, ]$agname)/length(aosa$agname),
2)

## [1] 0.13
# Terminations
sum(aosa$terminate)

## [1] 163
## Collapse as % of Terminations
round(sum(aosa[aosa$terminateform == 1, ]$terminate)/sum(aosa$terminate),
2)

## [1] 0.56

```

```
## Incorporation as % of Terminations
```

```
round(sum(aosa[aosa$terminateform == 2, ]$terminate)/sum(aosa$terminate),  
2)
```

```
## [1] 0.24
```

```
## Absorption as % of Terminations
```

```
round(sum(aosa[aosa$terminateform == 3, ]$terminate)/sum(aosa$terminate),  
2)
```

```
## [1] 0.09
```

```
## Disarmament as % of Terminations
```

```
round(sum(aosa[aosa$terminateform == 4, ]$terminate)/sum(aosa$terminate),  
2)
```

```
## [1] 0.09
```

```
## Victory as % of Terminations
```

```
round(sum(aosa[aosa$terminateform == 5, ]$terminate)/sum(aosa$terminate),  
2)
```

```
## [1] 0.01
```

1.B. Initial subsetting

Perform initial subsetting of the aosa dataset according to the research paper's scope conditions:

- No group-state govt dyads (we only want group-federal govt dyads)
- Observations before 2016
- No Afghanistan, Nepal, or Sri Lanka dyads

Be advised that we will remove mainstream political parties in subsequent code chunk. (We cannot remove them up front because armed groups often transition into and out of this identification in the middle of LLCs)

```
aosa <- aosa[aosa[, "state-level"] == 0 & aosa[, "obsyear"] <=  
2016 & ((aosa[, "Country"] != "Afghanistan") & (aosa[, "Country"] !=  
"Nepal") & (aosa[, "Country"] != "Sri Lanka")), ]
```

```
## Warning: The 'i' argument of '[' can't be a matrix as of tibble 3.0.0.
```

```
## Convert to a vector.
```

```
## This warning is displayed once every 8 hours.
```

```
## Call 'lifecycle::last_warnings()' to see where this warning was generated.
```

Now, subset the AOSA dataset to exclude:

- Dyad-years that were not “mainstream political parties”

```
aosa_notParty <- aosa[aosa$agsselfID != 1, ]
```

2. Preparation: List of Long-Term Limited Cooperation Orders

First, we'll perform an initial subset on the aosa dataset:

- At least 5 years of LLC

Simultaneously, we will only keep variables that might be used for analysis.

NOTE: We include mainstream political parties, as some LLC armed groups transition to/from them midway. However, we will eventually exclude LLCs where the armed group is fully a mainstream political party.

```
aosaLLC_long <- aosa[aosa[, "LCfiveyr_filter"] == 1, c("agname",
  "obsyear", "Country", "AG_cleavage", "religion_spec", "ID_ideology",
  "aggoals", "aggoals2", "agselfID", "agpolwing", "polpar",
  "pargov", "agillicit", "agtax", "peacedealonsset", "peacedealonging",
  "ceasefireonsset", "ceasefireongoing", "amnesty", "terminate",
  "agextsupport_general", "agextsupport_alleged")]
```

Second, we will prepare the matrix for further subsetting. We will remove:

- Observations with fewer than 5 years duration of their LLC (this can occur if they had an LLC which extended past 2016)
- Armed groups that were “mainstream political parties” for the duration of the period

```
# First, prepare the variables

# Armed order variables

## What is the armed group name (armed order name)?
LLCnames <- unique(aosaLLC_long$agname)

# Time variables

## What is the duration of the LLC?
vLLC_yrs <- setNames(vector("list", length(LLCnames)), LLCnames)

## What year does the LLC start?
vLLC_start <- setNames(vector("list", length(LLCnames)), LLCnames)

## What year does the LLC end?
vLLC_end <- setNames(vector("list", length(LLCnames)), LLCnames)

# Conflict characteristic variables

## In what country does most of the LLC occur?
vCountry <- setNames(vector("list", length(LLCnames)), LLCnames)

## With which cleavage does armed group identify for most of
## the LLC?
vAG_cleavage <- setNames(vector("list", length(LLCnames)), LLCnames)

## With which religion does the armed group identify for most
## of the LLC?
vreligion_spec <- setNames(vector("list", length(LLCnames)),
  LLCnames)

## With which ideology does the armed group identify for most
```

```

## of the LLC?
vID_ideology <- setNames(vector("list", length(LLCnames)), LLCnames)

# Goals of the armed group variables

## For what % of years of the LLC did the armed group espouse
## at least one maximalist goal? aggoals OR aggoals2 == (1)
## Independence/complete secession OR (3) Control over the
## central government
vmaximalGoals_yrs <- setNames(vector("list", length(LLCnames)),
  LLCnames)

## For what % of years of the LLC did the armed group espouse
## at least one goal about the territorial periphery? aggoals
## OR aggoals2 == (1) Independence/complete secession OR (2)
## Autonomy short of secession
vperipheryGoals_yrs <- setNames(vector("list", length(LLCnames)),
  LLCnames)

# Party and political activity variables

## For how many years of the LLC did the armed group NOT
## identify as 'Mainstream Political Party'?
vnotParty_yrs <- setNames(vector("list", length(LLCnames)), LLCnames)

## For how many years of the LLC did the armed group NOT
## identify as 'Anti-State Rebel'?
vnotRebel_yrs <- setNames(vector("list", length(LLCnames)), LLCnames)

## For how many years of the LLC did the armed group maintain
## a political wing?
vagpolwing_yrs <- setNames(vector("list", length(LLCnames)),
  LLCnames)

## For how many years of the LLC was the armed group formally
## involved in politics? polpar == (2) formal advocacy OR (3)
## formal participation
vformalPolpar_yrs <- setNames(vector("list", length(LLCnames)),
  LLCnames)

## For how many years of the LLC did the armed group operate
## some level of parallel government? pargov == (2)
## Semi-organized parallel government OR (3) Fully-organized
## parallel government
vsomePargov_yrs <- setNames(vector("list", length(LLCnames)),
  LLCnames)

## For how many years of the LLC was the armed group involved
## in illicit economies?
vagillicit_yrs <- setNames(vector("list", length(LLCnames)),
  LLCnames)

```

```

## For how many years of the LLC was the armed group involved
## in taxation?
vagtax_yrs <- setNames(vector("list", length(LLCnames)), LLCnames)

# Negotiation variables

## How many peace deals were signed during the LLC?
vpeacedealonsets <- setNames(vector("list", length(LLCnames)),
  LLCnames)

## How many years of the LLC coincided with a peace deal being
## in force?
vpeacedeal_yrs <- setNames(vector("list", length(LLCnames)),
  LLCnames)

## How many ceasefires were signed during the LLC?
vceasefireonsets <- setNames(vector("list", length(LLCnames)),
  LLCnames)

## How many years of the LLC coincided with a ceasefire being
## in force?
vceasefire_yrs <- setNames(vector("list", length(LLCnames)),
  LLCnames)

## How many amnesties were announced by the government during
## the LLC?
vamnesty_yrs <- setNames(vector("list", length(LLCnames)), LLCnames)

# Termination variable

## Did the armed order terminate during the LLC?
vterminate <- setNames(vector("list", length(LLCnames)), LLCnames)

# External support variables

## For how many years of the LLC did the armed group receive
## support from another country?
vsupportGen_yrs <- setNames(vector("list", length(LLCnames)),
  LLCnames)

## For how many years of the LLC did the armed group allegedly
## receive support from another country?
vsupportAlg_yrs <- setNames(vector("list", length(LLCnames)),
  LLCnames)

# Second, run the loop to populate the variables with their
# values

for (ag in LLCnames) {
  vLLC_yrs[ag] <- as.numeric(sum(aosaLLC_long$agname == ag))
}

```

```

vLLC_start[ag] <- as.numeric(min(aosaLLC_long[aosaLLC_long$agname ==
  ag, "obsyear"]))
vLLC_end[ag] <- as.numeric(max(aosaLLC_long[aosaLLC_long$agname ==
  ag, "obsyear"]))

vCountry[ag] <- sapply(aosaLLC_long[aosaLLC_long$agname ==
  ag, "Country"], Mode)
vAG_cleavage[ag] <- sapply(aosaLLC_long[aosaLLC_long$agname ==
  ag, "AG_cleavage"], Mode)
vreligion_spec[ag] <- sapply(aosaLLC_long[aosaLLC_long$agname ==
  ag, "religion_spec"], Mode)
vID_ideology[ag] <- sapply(aosaLLC_long[aosaLLC_long$agname ==
  ag, "ID_ideology"], Mode)

vmaximalGoals_yrs[ag] <- as.numeric(sum(aosaLLC_long[((aosaLLC_long$aggoals ==
  1 | aosaLLC_long$aggoals2 == 1) | (aosaLLC_long$aggoals ==
  3 | aosaLLC_long$aggoals2 == 3)), ]$agname == ag))
vperipheryGoals_yrs[ag] <- as.numeric(sum(aosaLLC_long[((aosaLLC_long$aggoals ==
  1 | aosaLLC_long$aggoals2 == 1) | (aosaLLC_long$aggoals ==
  2 | aosaLLC_long$aggoals2 == 2)), ]$agname == ag))

vnnotParty_yrs[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$agselfID !=
  1, ]$agname == ag))
vnnotRebel_yrs[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$agselfID !=
  3, ]$agname == ag))
vagpolwing_yrs[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$agpolwing ==
  1, ]$agname == ag, na.rm = TRUE))
vformalPolpar_yrs[ag] <- as.numeric(sum(aosaLLC_long[(aosaLLC_long$polpar ==
  2 | aosaLLC_long$polpar == 3), ]$agname == ag, na.rm = TRUE))

vsomePargov_yrs[ag] <- as.numeric(sum(aosaLLC_long[(aosaLLC_long$pargov ==
  2 | aosaLLC_long$pargov == 3), ]$agname == ag, na.rm = TRUE))
vagillicit_yrs[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$agillicit ==
  1, ]$agname == ag, na.rm = TRUE))
vagtax_yrs[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$agtax ==
  1, ]$agname == ag, na.rm = TRUE))

vpeacedealonsets[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$peacedealonset ==
  1, ]$agname == ag))
vpeacedeal_yrs[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$peacedealongoing ==
  1, ]$agname == ag))
vceasefireonsets[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$ceasefireonset ==
  1, ]$agname == ag))
vceasefire_yrs[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$ceasefireongoing ==
  1, ]$agname == ag))
vamnesty_yrs[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$amnesty ==
  1, ]$agname == ag))

vterminate[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$terminate ==
  1, ]$agname == ag))

vsupportGen_yrs[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$agextsupport_general ==
  1, ]$agname == ag))

```

```

vsupportAlg_yrs[ag] <- as.numeric(sum(aosaLLC_long[aosaLLC_long$agextsupport_alleged ==
  1, ]$agname == ag))
}

# Third, create secondary variables

## Alternative way to calculate the duration of the LLC
vLLC_endLessStart <- as.numeric(vLLC_end) - as.numeric(vLLC_start) +
  1

## Indicates if the count of observations for an armed group
## is less than five years, meaning the group should be
## removed from the list of LLCs
vLLC_lessThan5yrs <- as.numeric(vLLC_yrs) < 5

## Indicates if the armed group was a mainstream political
## party for the duration of the LLC, meaning the group should
## be removed from the list of LLCs
vmainstreamParty <- as.numeric(vnotParty_yrs) == 0

## Indicates if there is a disjuncture between the two methods
## for counting the duration of the LLC, meaning we need to
## manually examine the data
vinconsistentDuration <- as.numeric(vLLC_yrs) != vLLC_endLessStart

# Fourth, assemble the matrix of LLCs

aosaLLC <- cbind(as.numeric(vLLC_yrs), as.numeric(vLLC_start),
  as.numeric(vLLC_end), as.numeric(vLLC_lessThan5yrs), as.numeric(vLLC_endLessStart),
  as.numeric(vinconsistentDuration), vCountry, vAG_cleavage,
  vreligion_spec, vID_ideology, as.numeric(vmaximalGoals_yrs),
  as.numeric(vperipheryGoals_yrs), as.numeric(vmainstreamParty),
  as.numeric(vnotParty_yrs), as.numeric(vnotRebel_yrs), as.numeric(vagpolwing_yrs),
  as.numeric(vformalPolpar_yrs), as.numeric(vsomePargov_yrs),
  as.numeric(vagillicit_yrs), as.numeric(vagtax_yrs), as.numeric(vpeacedealonsets),
  as.numeric(vpeacedeal_yrs), as.numeric(vceasefireonsets),
  as.numeric(vceasefire_yrs), as.numeric(vamnesty_yrs), as.numeric(vterminate),
  as.numeric(vsupportGen_yrs), as.numeric(vsupportAlg_yrs))

aosaLLC <- (data.frame(row.names(aosaLLC), aosaLLC, row.names = NULL))

colnames(aosaLLC) <- c("agname", "LLC_yrs", "LLC_start", "LLC_end",
  "LLC_lessThan5yrs", "LLC_endLessStart", "inconsistentDuration",
  "Country", "AG_cleavage", "religion_spec", "ID_ideology",
  "maximalGoals_yrs", "peripheryGoals_yrs", "mainstreamParty",
  "notParty_yrs", "notRebel_yrs", "agpolwing_yrs", "formalPolpar_yrs",
  "somePargov_yrs", "agillicit_yrs", "agtax_yrs", "peacedealonsets",
  "peacedeal_yrs", "ceasefireonsets", "ceasefire_yrs", "amnesty_yrs",
  "terminations", "supportGen_yrs", "supportAlg_yrs")

```

```
# Fifth, perform the subsetting
```

```
aosaLLC <- aosaLLC[aosaLLC$LLC_lessThan5yrs == 0 & aosaLLC$mainstreamParty ==  
0, ]
```

Third, we are going to identify and manually inspect rows where there may be multiple LLCs. This will include:

- Counting the number of elements
- Manually inspecting rows where there may be multiple LLCs
- Replacing anomalous rows with corrected rows

We will also prepare the matrix for graphics by:

- Removing unnecessary columns
- Preparing unique names for each LLC

```
# First, clean up any inconsistencies in the LLC data
```

```
# There are at least 45 armed group LLCs
```

```
length(aosaLLC$agname)
```

```
## [1] 45
```

```
# Some of these LLCs may be multiples
```

```
aosaLLC[aosaLLC$inconsistentDuration == 1, ]
```

```
##          agname LLC_yrs LLC_start LLC_end LLC_lessThan5yrs LLC_endLessStart  
## 13 Khun Sa Group      13      1962      1988           0           27  
## 16          KNO       16      1988      2016           0           29  
## 31          NMSP      18      1996      2016           0           21  
## 42          RSS      46      1950      2013           0           64  
##   inconsistentDuration Country      AG_cleavage religion_spec  
## 13                   1 Myanmar Criminal (Myanmar)          NA  
## 16                   1 India          Kuki          Northeast  
## 31                   1 Myanmar          Mon          NA  
## 42                   1 India          Hindutva          Hindu  
##          ID_ideology maximalGoals_yrs peripheryGoals_yrs mainstreamParty  
## 13          none              6              6              0  
## 16  linguistic-tribal              7              16              0  
## 31          linguistic              0              0              0  
## 42 religious-linguistic              0              0              0  
##   notParty_yrs notRebel_yrs agpolwing_yrs formalPolpar_yrs somePargov_yrs  
## 13           13           13              0              0              0  
## 16           16            9              0              0              0  
## 31           18            4              18              0              0  
## 42           46           46              46              46              0  
##   agillicit_yrs agtax_yrs peacedealonssets peacedeal_yrs ceasefireonsets  
## 13            13            0              0              0              0  
## 16             0            0              0              0              0  
## 31             0            0              0              0              0  
## 42             0            0              0              0              0
```

```
##      ceasefire_yrs amnesty_yrs terminations supportGen_yrs supportAlg_yrs
## 13             0           0             1             1             0
## 16             11           0             0             0             0
## 31             18           0             0             0             0
## 42             0            0             0             0             0
```

```
# Khun Sa Group has 2 LLCs: 1962-1968 and 1983-1988
```

```
as.matrix(aosa[aosa$agname == "Khun Sa Group" & aosa$obsyear >=
  1962 & aosa$obsyear <= 1988 & aosa$LCfiveyr_filter == 1,
  "obsyear"])
```

```
##      obsyear
## [1,] 1962
## [2,] 1963
## [3,] 1964
## [4,] 1965
## [5,] 1966
## [6,] 1967
## [7,] 1968
## [8,] 1983
## [9,] 1984
## [10,] 1985
## [11,] 1986
## [12,] 1987
## [13,] 1988
```

```
# We will replace the Khun Sa Group row with two new rows
```

```
aosaLLC <- aosaLLC[aosaLLC$agname != "Khun Sa Group", ]
aosaLLC <- rbind(aosaLLC, c("Khun Sa Group", 7, 1962, 1968, 0,
  7, 0, "Myanmar", "Criminal (Myanmar)", "NA", "none", 0, 0,
  0, 7, 7, 0, 0, 0, 7, 0, 0, 0, 0, 0, 0, 1, 0, 0), c("Khun Sa Group",
  6, 1983, 1988, 0, 6, 0, "Myanmar", "Criminal (Myanmar)",
  "NA", "none", 6, 6, 0, 6, 6, 0, 0, 0, 6, 0, 0, 0, 0, 0,
  0, 1, 0))
```

```
# KNO has 2 LLCs: 1988-1992 and 2006-2016
```

```
as.matrix(aosa[aosa$agname == "KNO" & aosa$obsyear >= 1988 &
  aosa$obsyear <= 2016 & aosa$LCfiveyr_filter == 1, "obsyear"])
```

```
##      obsyear
## [1,] 1988
## [2,] 1989
## [3,] 1990
## [4,] 1991
## [5,] 1992
## [6,] 2006
## [7,] 2007
## [8,] 2008
## [9,] 2009
## [10,] 2010
## [11,] 2011
```

```
## [12,] 2012
## [13,] 2013
## [14,] 2014
## [15,] 2015
## [16,] 2016
```

```
# We will replace the KNO row with two new rows
```

```
aosaLLC <- aosaLLC[aosaLLC$aaname != "KNO", ]

aosaLLC <- rbind(aosaLLC, c("KNO", 5, 1988, 1992, 0, 5, 0, "India",
  "Kuki", "Northeast", "linguistic-tribal", 5, 5, 0, 5, 0,
  0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0), c("KNO", 11, 2006,
  2016, 0, 11, 0, "India", "Kuki", "Northeast", "linguistic-tribal",
  2, 11, 0, 11, 9, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0))
```

```
# NMSP has 1 LLC: 1996-2009
```

```
as.matrix(aosa[aosa$aaname == "NMSP" & aosa$obsyear >= 1996 &
  aosa$obsyear <= 2016 & aosa$LCfiveyr_filter == 1, "obsyear"])
```

```
##      obsyear
## [1,] 1996
## [2,] 1997
## [3,] 1998
## [4,] 1999
## [5,] 2000
## [6,] 2001
## [7,] 2002
## [8,] 2003
## [9,] 2004
## [10,] 2005
## [11,] 2006
## [12,] 2007
## [13,] 2008
## [14,] 2009
## [15,] 2013
## [16,] 2014
## [17,] 2015
## [18,] 2016
```

```
# We will replace the NMSP row
```

```
aosaLLC <- aosaLLC[aosaLLC$aaname != "NMSP", ]

aosaLLC <- rbind(aosaLLC, c("NMSP", 14, 1996, 2009, 0, 14, 0,
  "Myanmar", "Mon", "NA", "linguistic", 0, 0, 0, 14, 0, 14,
  0, 0, 0, 0, 0, 0, 0, 0, 14, 0, 0, 0, 0, 0))
```

```
# We will also recode the five year LLC filter from 2013 to
# 2016 to be 0
```

```
aosa[aosa$aanameobsyear == "NMSP2013", "LCfiveyr_filter"] <- 0
aosa[aosa$aanameobsyear == "NMSP2014", "LCfiveyr_filter"] <- 0
```

```

aosa[aosa$agnameobsyear == "NMSP2015", "LCfiveyr_filter"] <- 0
aosa[aosa$agnameobsyear == "NMSP2016", "LCfiveyr_filter"] <- 0

# RSS has 3 LLCs: 1950-1974, 1980-1991, and 2005-2013

as.matrix(aosa[aosa$agname == "RSS" & aosa$obsyear >= 1950 &
  aosa$obsyear <= 2013 & aosa$LCfiveyr_filter == 1, "obsyear"])

```

```

##      obsyear
## [1,] 1950
## [2,] 1951
## [3,] 1952
## [4,] 1953
## [5,] 1954
## [6,] 1955
## [7,] 1956
## [8,] 1957
## [9,] 1958
## [10,] 1959
## [11,] 1960
## [12,] 1961
## [13,] 1962
## [14,] 1963
## [15,] 1964
## [16,] 1965
## [17,] 1966
## [18,] 1967
## [19,] 1968
## [20,] 1969
## [21,] 1970
## [22,] 1971
## [23,] 1972
## [24,] 1973
## [25,] 1974
## [26,] 1980
## [27,] 1981
## [28,] 1982
## [29,] 1983
## [30,] 1984
## [31,] 1985
## [32,] 1986
## [33,] 1987
## [34,] 1988
## [35,] 1989
## [36,] 1990
## [37,] 1991
## [38,] 2005
## [39,] 2006
## [40,] 2007
## [41,] 2008
## [42,] 2009
## [43,] 2010
## [44,] 2011

```

```

## [45,]    2012
## [46,]    2013
# We will replace the RSS row with three new rows

aosaLLC <- aosaLLC[aosaLLC$agname != "RSS", ]

aosaLLC <- rbind(aosaLLC, c("RSS", 25, 1950, 1974, 0, 25, 0,
  "India", "Hindutva", "Hindu", "religious-linguistic", 0,
  0, 0, 25, 25, 25, 25, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0), c("RSS",
  12, 1980, 1991, 0, 12, 0, "India", "Hindutva", "Hindu", "religious-linguistic",
  0, 0, 0, 12, 12, 12, 12, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0),
  c("RSS", 9, 2005, 2013, 0, 9, 0, "India", "Hindutva", "Hindu",
    "religious-linguistic", 0, 0, 0, 9, 9, 9, 9, 0, 0, 0,
    0, 0, 0, 0, 0, 0, 0))

# Second, clear matrix by removing columns that were used for
# filtering but that are now unnecessary

aosaLLC <- aosaLLC[, c("agname", "LLC_yrs", "LLC_start", "LLC_end",
  "Country", "AG_cleavage", "religion_spec", "ID_ideology",
  "maximalGoals_yrs", "peripheryGoals_yrs", "notParty_yrs",
  "notRebel_yrs", "agpolwing_yrs", "formalPolpar_yrs", "somePargov_yrs",
  "agillicit_yrs", "agtax_yrs", "peacedealonsets", "peacedeal_yrs",
  "ceasefireonsets", "ceasefire_yrs", "amnesty_yrs", "terminations",
  "supportGen_yrs", "supportAlg_yrs")]

# Third, transform variables measured in 'number of years'
# into variables measured in '% of LLC years'

## % of years with maximalist goals
aosaLLC$maximalGoals_pctyrs <- round(as.numeric(aosaLLC$maximalGoals_yrs)/as.numeric(aosaLLC$LLC_yrs),
  3)

## % of years with goals on the territorial periphery
aosaLLC$peripheryGoals_pctyrs <- round(as.numeric(aosaLLC$peripheryGoals_yrs)/as.numeric(aosaLLC$LLC_yrs),
  3)

## % of years NOT as a mainstream political party
aosaLLC$notParty_pctyrs <- round(as.numeric(aosaLLC$notParty_yrs)/as.numeric(aosaLLC$LLC_yrs),
  3)

## % of years NOT as an anti-state rebel
aosaLLC$notRebel_pctyrs <- round(as.numeric(aosaLLC$notRebel_yrs)/as.numeric(aosaLLC$LLC_yrs),
  3)

## % of years with a political wing
aosaLLC$agpolwing_pctyrs <- round(as.numeric(aosaLLC$agpolwing_yrs)/as.numeric(aosaLLC$LLC_yrs),
  3)

## % of years with formal political involvement

```

```

aosaLLC$formalPolpar_pctyrs <- round(as.numeric(aosaLLC$formalPolpar_yrs)/as.numeric(aosaLLC$LLC_yrs),
3)

## % of years with some level of parallel government
aosaLLC$somePargov_pctyrs <- round(as.numeric(aosaLLC$somePargov_yrs)/as.numeric(aosaLLC$LLC_yrs),
3)

## % of years involved in illicit economies
aosaLLC$agillicit_pctyrs <- round(as.numeric(aosaLLC$agillicit_yrs)/as.numeric(aosaLLC$LLC_yrs),
3)

## % of years involved in taxation
aosaLLC$agtax_pctyrs <- round(as.numeric(aosaLLC$agtax_yrs)/as.numeric(aosaLLC$LLC_yrs),
3)

## % of years under a peace deal
aosaLLC$peacedeal_pctyrs <- round(as.numeric(aosaLLC$peacedeal_yrs)/as.numeric(aosaLLC$LLC_yrs),
3)

## % of years under a ceasefire
aosaLLC$ceasefire_pctyrs <- round(as.numeric(aosaLLC$ceasefire_yrs)/as.numeric(aosaLLC$LLC_yrs),
3)

## % of years with an amnesty
aosaLLC$amnesty_pctyrs <- round(as.numeric(aosaLLC$amnesty_yrs)/as.numeric(aosaLLC$LLC_yrs),
3)

## % of years with external support
aosaLLC$supportGen_pctyrs <- round(as.numeric(aosaLLC$supportGen_yrs)/as.numeric(aosaLLC$LLC_yrs),
3)

## % of years allegedly with external support
aosaLLC$supportAlg_pctyrs <- round(as.numeric(aosaLLC$supportAlg_yrs)/as.numeric(aosaLLC$LLC_yrs),
3)

# Fourth, recompile the list of LLCs - once in terms of % of
# years, and again in terms of count of years
aosaLLC_pctyrs <- aosaLLC[, c("agname", "LLC_yrs", "LLC_start",
"LLC_end", "Country", "AG_cleavage", "religion_spec", "ID_ideology",
"maximalGoals_pctyrs", "peripheryGoals_pctyrs", "notParty_pctyrs",
"notRebel_pctyrs", "agpolwing_pctyrs", "formalPolpar_pctyrs",
"somePargov_pctyrs", "agillicit_pctyrs", "agtax_pctyrs",
"peacedealonsets", "peacedeal_pctyrs", "ceasefireonsets",
"ceasefire_pctyrs", "amnesty_pctyrs", "terminations", "supportGen_pctyrs",
"supportAlg_pctyrs")]

aosaLLC <- aosaLLC[, c("agname", "LLC_yrs", "LLC_start", "LLC_end",
"Country", "AG_cleavage", "religion_spec", "ID_ideology",
"maximalGoals_yrs", "peripheryGoals_yrs", "notParty_yrs",
"notRebel_yrs", "agpolwing_yrs", "formalPolpar_yrs", "somePargov_yrs",

```

```

"agillicit_yrs", "agtax_yrs", "peacedealonsets", "peacedeal_yrs",
"ceasefireonsets", "ceasefire_yrs", "amnesty_yrs", "terminations",
"supportGen_yrs", "supportAlg_yrs")]

# Fifth, generate a list of unique LLCs (Armed Group Name +
# Country + Years) and bind it as a new column

# NOTE: do not run this multiple times, as it will simply
# keep adding LLC names to the dataset

aosallc <- cbind(paste(aosallc$agname, " and ", aosallc$Country,
  " (", aosallc$llc_start, "-", aosallc$llc_end, ")", sep = ""),
  aosallc)

colnames(aosallc)[1] <- "LLC"

aosallc_pctyrs <- cbind(paste(aosallc_pctyrs$agname, " and ",
  aosallc_pctyrs$Country, " (", aosallc_pctyrs$llc_start, "-",
  aosallc_pctyrs$llc_end, ")", sep = ""), aosallc_pctyrs)

colnames(aosallc_pctyrs)[1] <- "LLC"

```

Fourth, we'll create the dataset of LLCs over ten years.

```

# List of LLCs 10 years or longer in duration

aosallc_over10yrs <- aosallc[aosallc$llc_yrs >= 10, ]

aosallc_over10yrs_pctyrs <- aosallc_pctyrs[aosallc_pctyrs$llc_yrs >=
  10, ]

(LLCs_over10yrs <- sort(aosallc_over10yrs$llc))

```

```

## [1] "ANVC and India (2005-2014)"
## [2] "ATiP and Pakistan (2002-2016)"
## [3] "CNF and Myanmar (2004-2016)"
## [4] "HuM-Pakistan and Pakistan (2001-2012)"
## [5] "KIO and Myanmar (1995-2010)"
## [6] "KNF and India (2006-2016)"
## [7] "KNO and India (2006-2016)"
## [8] "KNPP and Myanmar (2000-2016)"
## [9] "Kokang Militia and Myanmar (1949-1961)"
## [10] "KS and India (1969-1992)"
## [11] "MNDAA and Myanmar (1989-2008)"
## [12] "NDA-K and Myanmar (1989-2008)"
## [13] "NDAA and Myanmar (1989-2016)"
## [14] "NMSF and Myanmar (1996-2009)"
## [15] "NSCN-IM and India (1997-2016)"
## [16] "NSCN-K and India (1998-2014)"
## [17] "PNLO(2) and Myanmar (2007-2016)"
## [18] "PNO and Myanmar (1995-2016)"
## [19] "PSLF and Myanmar (1992-2005)"
## [20] "RSS and India (1950-1974)"
## [21] "RSS and India (1980-1991)"

```

```
## [22] "SSA-N and Myanmar (1990-2016)"
## [23] "SSNLO and Myanmar (1995-2007)"
## [24] "UWSA and Myanmar (1989-2016)"
```

Fifth, we'll recode the dyads in "aosa_notParty" that are different from the dyads in "aosaLLC" and "aosaLLC_over10yrs"

```
# Five year LLC
```

```
## First, the dyad-years set seems to contain two additional
## dyads than the LLC set
```

```
length(unique(aosa_notParty[aosa_notParty$LCfiveyr_filter ==
  1, ]$agname))
```

```
## [1] 47
```

```
length(unique(aosaLLC$agname))
```

```
## [1] 45
```

```
## Second, these two dyads contained in the dyad-years set
## seem to be ALP and HQN-Pakistan
```

```
setdiff(unique(aosa_notParty[aosa_notParty$LCfiveyr_filter ==
  1, ]$agname), unique(aosaLLC$agname))
```

```
## [1] "ALP" "HQN-Pakistan"
```

```
setdiff(unique(aosaLLC$agname), unique(aosa_notParty[aosa_notParty$LCfiveyr_filter ==
  1, ]$agname))
```

```
## character(0)
```

```
## Third, we can identify which years to recode the filter to
## 0
```

```
### ALP: the years 2013-2016 were coded as LLC due to cutoff at
### 2016
```

```
aosa_notParty[aosa_notParty$agname == "ALP", c("agnameobsyear",
  "armedorder", "neworder", "LCfiveyr_filter")]
```

```
## # A tibble: 43 x 4
##   agnameobsyear armedorder neworder LCfiveyr_filter
##   <chr>          <dbl>    <dbl>         <dbl>
## 1 ALP1968         2      -999           0
## 2 ALP1972         2      -999           0
## 3 ALP1973         2      -999           0
## 4 ALP1974         2      -999           0
## 5 ALP1975         2      -999           0
## 6 ALP1976         2      -999           0
## 7 ALP1977         2      -999           0
## 8 ALP1981         2      -999           0
## 9 ALP1982         2      -999           0
## 10 ALP1983        2      -999           0
## # ... with 33 more rows
```

```

aosa_notParty[aosa_notParty$agnameobsyear == "ALP2013", "LCfiveyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "ALP2014", "LCfiveyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "ALP2015", "LCfiveyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "ALP2016", "LCfiveyr_filter"] <- 0

```

```

### HQN-Pakistan: the years 2014-2016 were coded as LLC due to
### cutoff at 2016

```

```

aosa_notParty[aosa_notParty$agname == "HQN-Pakistan", c("agnameobsyear",
  "armedorder", "neworder", "LCfiveyr_filter")]

```

```

## # A tibble: 44 x 4
##   agnameobsyear   armedorder neworder LCfiveyr_filter
##   <chr>           <dbl>     <dbl>     <dbl>
## 1 HQN-Pakistan1973     5       -999         0
## 2 HQN-Pakistan1974     4       -999         0
## 3 HQN-Pakistan1975     4       -999         0
## 4 HQN-Pakistan1976     4       -999         0
## 5 HQN-Pakistan1977     5       -999         0
## 6 HQN-Pakistan1978     5       -999         0
## 7 HQN-Pakistan1979     5       -999         0
## 8 HQN-Pakistan1980     5       -999         0
## 9 HQN-Pakistan1981     5       -999         0
## 10 HQN-Pakistan1982    5       -999         0
## # ... with 34 more rows

```

```

aosa_notParty[aosa_notParty$agnameobsyear == "HQN-Pakistan2014",
  "LCfiveyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "HQN-Pakistan2015",
  "LCfiveyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "HQN-Pakistan2016",
  "LCfiveyr_filter"] <- 0

```

```

## Fourth, we will reconfirm that the number of years adds up

```

```

sum(as.numeric(unlist(aosaLLC$notParty_yrs))) == length(unlist(aosa_notParty[aosa_notParty$LCfiveyr_fil
  1, "agnameobsyear"]))

```

```

## [1] FALSE

```

```

# Ten year LLC

```

```

## First, the dyad-years set seems to contain one additional
## dyad than the LLC set

```

```

length(unique(aosa_notParty[aosa_notParty$LCtenyr_filter == 1,
  ]$agname))

```

```

## [1] 24

```

```

length(unique(aosaLLC_over10yrs$agname))

```

```

## [1] 23

```

```

## Second, this dyad contained in the dyad-years set seems to
## be the MNG

```

```

setdiff(unique(aosa_notParty[aosa_notParty$LCTenyr_filter ==
  1, ]$agname), unique(aosaLLC_over10yrs$agname))

## [1] "MNG"

setdiff(unique(aosaLLC_over10yrs$agname), unique(aosa_notParty[aosa_notParty$LCTenyr_filter ==
  1, ]$agname))

## character(0)

## Third, for the MNG, the years 2008 to 2016 were coded as
## LLC due to the cutoff at 2016

aosa_notParty[aosa_notParty$agname == "MNG", c("agnameobsyear",
  "armedorder", "neworder", "LCTenyr_filter")]

## # A tibble: 13 x 4
##   agnameobsyear armedorder neworder LCTenyr_filter
##   <chr>          <dbl>    <dbl>         <dbl>
## 1 MNG2004        2      -999           0
## 2 MNG2005        2      -999           0
## 3 MNG2006        2         4           0
## 4 MNG2007        4         5           0
## 5 MNG2008        4      -999           1
## 6 MNG2009        4      -999           1
## 7 MNG2010        4      -999           1
## 8 MNG2011        4      -999           1
## 9 MNG2012        4      -999           1
## 10 MNG2013       4      -999           1
## 11 MNG2014       4      -999           1
## 12 MNG2015       4      -999           1
## 13 MNG2016       4      -999           1

aosa_notParty[aosa_notParty$agnameobsyear == "MNG2008", "LCTenyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "MNG2009", "LCTenyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "MNG2010", "LCTenyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "MNG2011", "LCTenyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "MNG2012", "LCTenyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "MNG2013", "LCTenyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "MNG2014", "LCTenyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "MNG2015", "LCTenyr_filter"] <- 0
aosa_notParty[aosa_notParty$agnameobsyear == "MNG2016", "LCTenyr_filter"] <- 0

## Fourth, we will reconfirm that the number of years adds up

sum(as.numeric(unlist(aosaLLC_over10yrs$notParty_yrs))) == length(unlist(aosa_notParty[aosa_notParty$LCTenyr_filter ==
  1, "agnameobsyear"]))

## [1] TRUE

```

3. Preparation: Dataset for Dyad-Year Analysis

This section prepares the dataset used for analysis when the “dyad-year” is the unit of observation.

First, we’ll add in the variables that might be useful for the analysis. Not all variables will be represented in

the final figures and tables.

```
# Armed Group Goals

maximalGoals <- as.numeric((aosa_notParty$aggoals == 1 | aosa_notParty$aggoals2 ==
  1) | (aosa_notParty$aggoals == 3 | aosa_notParty$aggoals2 ==
  3))

peripheryGoals <- as.numeric((aosa_notParty$aggoals == 1 | aosa_notParty$aggoals2 ==
  1) | (aosa_notParty$aggoals == 2 | aosa_notParty$aggoals2 ==
  2))

aosa_notParty <- cbind(aosa_notParty, maximalGoals, peripheryGoals)

# Political and Organizational Characteristics of Armed
# Groups

notRebel <- as.numeric(aosa_notParty$agselfID != 3)

formalPolpar <- as.numeric(aosa_notParty$polpar == 2 | aosa_notParty$polpar ==
  3)

someParGov <- as.numeric(aosa_notParty$pargov == 2 | aosa_notParty$pargov ==
  3)

aosa_notParty <- cbind(aosa_notParty, notRebel, formalPolpar,
  someParGov)

# Fixed Effects and Control Variables

post1988 <- as.numeric(aosa_notParty$obsyear > 1988)

aosa_notParty <- cbind(aosa_notParty, post1988)
```

Second, we'll prepare filters to indicate:

- If the termination was incorporation or disarmament
- If the Indian dyad-years occurred in Northeastern States
- If the Burmese dyad-years occurred with ethnonational cleavages

```
## Indicates whether or not the termination Incorporation or
## Disarmament

termFilter <- as.numeric(aosa_notParty$terminateform == 2 | aosa_notParty$terminateform ==
  4)

aosa_notParty <- cbind(aosa_notParty, termFilter)

## Indicates if the armed group was in India's Northeast
indiaNortheast <- as.numeric(aosa_notParty$religion_spec == "Northeast")

## Indicates if the armed group was Ethnonational in Myanmar
burmaEthnonational <- as.numeric(aosa_notParty$AG_cleavage ==
```

```

"Chin" | aosa_notParty$AG_cleavage == "Kachin" | aosa_notParty$AG_cleavage ==
"Karen" | aosa_notParty$AG_cleavage == "Karenni" | aosa_notParty$AG_cleavage ==
"Kokang" | aosa_notParty$AG_cleavage == "Mon" | aosa_notParty$AG_cleavage ==
"Naga" | aosa_notParty$AG_cleavage == "Palaung" | aosa_notParty$AG_cleavage ==
"Pao" | aosa_notParty$AG_cleavage == "Rakhine" | aosa_notParty$AG_cleavage ==
"Shan")

```

```
aosa_notParty <- cbind(aosa_notParty, indiaNortheast, burmaEthnonational)
```

4. Preparation: Dataset for Dyad Analysis

This section prepares the dataset used for analysis when the “dyad” is the unit of observation.

Notice that I am using the dataset which excludes the mainstream political parties (`aosa_notParty`), in order to keep consistent with the previous analysis that pooled the dyad-years.

First, we’ll add in the variables useful for the analysis. Not all variables will be represented in the final figures and tables.

```

## What is the armed group name (armed order name)?
dyadNames <- unique(aosa_notParty$aername)

# Time / armed order / LLC variables

## What is the duration of the dyad (count of years)?
vDuration <- setNames(vector("list", length(dyadNames)), dyadNames)

## For how many years was the dyad an LLC (at least five
## years)?
vLLCfiveyr_yrs <- setNames(vector("list", length(dyadNames)),
  dyadNames)

## For how many years was the dyad an LLC (at least ten
## years)?
vLLCtenyr_yrs <- setNames(vector("list", length(dyadNames)),
  dyadNames)

# Conflict characteristic variables

## In what country does the dyad occur?
vCountry <- setNames(vector("list", length(dyadNames)), dyadNames)

## With which cleavage does armed group identify for most of
## the dyad?
vAG_cleavage <- setNames(vector("list", length(dyadNames)), dyadNames)

## With which religion does the armed group identify for most
## of the dyad?
vreligion_spec <- setNames(vector("list", length(dyadNames)),
  dyadNames)

## With which ideology does the armed group identify for most

```

```

## of the LLC?
vID_ideology <- setNames(vector("list", length(dyadNames)), dyadNames)

## For how many years did the group identify as leftist?
vLeftist <- setNames(vector("list", length(dyadNames)), dyadNames)

## For how many years did the group identify as religious?
vReligious <- setNames(vector("list", length(dyadNames)), dyadNames)

## For how many years did the group identify as linguistic?
vLinguistic <- setNames(vector("list", length(dyadNames)), dyadNames)

## For how many years did the group identify as tribal?
vTribal <- setNames(vector("list", length(dyadNames)), dyadNames)

# Goals of the armed group variables

## For what % of years of the dyad did the armed group espouse
## at least one maximalist goal? aggoals OR aggoals2 == (1)
## Independence/complete secession OR (3) Control over the
## central government
vmaximalGoals_yrs <- setNames(vector("list", length(dyadNames)),
  dyadNames)

## For what % of years of the dyad did the armed group espouse
## at least one goal about the territorial periphery? aggoals
## OR aggoals2 == (1) Independence/complete secession OR (2)
## Autonomy short of secession
vperipheryGoals_yrs <- setNames(vector("list", length(dyadNames)),
  dyadNames)

# Party and political activity variables

## For how many years of the LLC did the armed group NOT
## identify as 'Anti-State Rebel'?
vnotRebel_yrs <- setNames(vector("list", length(dyadNames)),
  dyadNames)

```

Second, run the loop to populate the variables with their values.

(Note: many errors called “number of items to replace is not a multiple of replacement length” will be returned by the following chunk, but it doesn’t seem like this harms the dataset creation process).

```

for (ag in dyadNames) {
  vDuration[ag] <- as.numeric(sum(aosa_notParty$agname == ag))
  vLLCfiveyr_yrs[ag] <- as.numeric(sum(aosa_notParty[aosa_notParty$LCfiveyr_filter ==
    1, ]$agname == ag))
  vLLCtenyr_yrs[ag] <- as.numeric(sum(aosa_notParty[aosa_notParty$LCtenyr_filter ==
    1, ]$agname == ag))

  vCountry[ag] <- sapply(aosa_notParty[aosa_notParty$agname ==
    ag, "Country"], Mode)
  vAG_cleavage[ag] <- sapply(aosa_notParty[aosa_notParty$agname ==

```

```

    ag, "AG_cleavage"], Mode)
vreligion_spec[ag] <- sapply(aosa_notParty[aosa_notParty$agname ==
    ag, "religion_spec"], Mode)
vID_ideology[ag] <- sapply(aosa_notParty[aosa_notParty$agname ==
    ag, "ID_ideology"], Mode)
vLeftist[ag] <- as.numeric(sum(aosa_notParty[aosa_notParty$leftist ==
    1, ]$agname == ag))
vReligious[ag] <- as.numeric(sum(aosa_notParty[aosa_notParty$religious ==
    1, ]$agname == ag))
vLinguistic[ag] <- as.numeric(sum(aosa_notParty[aosa_notParty$linguistic ==
    1, ]$agname == ag))
vTribal[ag] <- as.numeric(sum(aosa_notParty[aosa_notParty$tribal ==
    1, ]$agname == ag))

vmaximalGoals_yrs[ag] <- as.numeric(sum(aosa_notParty[[(aosa_notParty$aggoals ==
    1 | aosa_notParty$aggoals2 == 1) | (aosa_notParty$aggoals ==
    3 | aosa_notParty$aggoals2 == 3)], ]$agname == ag))
vperipheryGoals_yrs[ag] <- as.numeric(sum(aosa_notParty[[(aosa_notParty$aggoals ==
    1 | aosa_notParty$aggoals2 == 1) | (aosa_notParty$aggoals ==
    2 | aosa_notParty$aggoals2 == 2)], ]$agname == ag))

vnotRebel_yrs[ag] <- as.numeric(sum(aosa_notParty[aosa_notParty$agselfID !=
    3, ]$agname == ag))
}

```

```

## Warning in vCountry[ag] <- sapply(aosa_notParty[aosa_notParty$agname == : number
## of items to replace is not a multiple of replacement length

## Warning in vAG_cleavage[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vreligion_spec[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vID_ideology[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vCountry[ag] <- sapply(aosa_notParty[aosa_notParty$agname == : number
## of items to replace is not a multiple of replacement length

## Warning in vAG_cleavage[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vreligion_spec[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vID_ideology[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vCountry[ag] <- sapply(aosa_notParty[aosa_notParty$agname == : number
## of items to replace is not a multiple of replacement length

## Warning in vAG_cleavage[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vreligion_spec[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

```



```

## Warning in vCountry[ag] <- sapply(aosa_notParty[aosa_notParty$agname == : number
## of items to replace is not a multiple of replacement length

## Warning in vAG_cleavage[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vreligion_spec[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vID_ideology[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vCountry[ag] <- sapply(aosa_notParty[aosa_notParty$agname == : number
## of items to replace is not a multiple of replacement length

## Warning in vAG_cleavage[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vreligion_spec[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vID_ideology[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vCountry[ag] <- sapply(aosa_notParty[aosa_notParty$agname == : number
## of items to replace is not a multiple of replacement length

## Warning in vAG_cleavage[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vreligion_spec[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

## Warning in vID_ideology[ag] <- sapply(aosa_notParty[aosa_notParty$agname == :
## number of items to replace is not a multiple of replacement length

```

Third, create secondary variables

```

## Indicates if there was at least one year of LLC

vLLCfiveyr_filter <- as.numeric(vLLCfiveyr_yrs > 0)

vLLCtenyr_filter <- as.numeric(vLLCtenyr_yrs > 0)

## Indicates what percent of years during the dyad was spent
## in LLC

vLLCfiveyr_pctyrs <- round(as.numeric(vLLCfiveyr_yrs)/as.numeric(vDuration),
3)

vLLCtenyr_pctyrs <- round(as.numeric(vLLCtenyr_yrs)/as.numeric(vDuration),
3)

## Indicates if the armed group was in India's Northeast
vIndiaNortheast <- as.numeric(vreligion_spec == "Northeast")

## Indicates if the armed group was Ethnonational in Myanmar
vBurmaEthnonational <- as.numeric(vAG_cleavage == "Chin" | vAG_cleavage ==
"Kachin" | vAG_cleavage == "Karen" | vAG_cleavage == "Karenni" |
vAG_cleavage == "Kokang" | vAG_cleavage == "Mon" | vAG_cleavage ==

```

```

"Naga" | vAG_cleavage == "Palaung" | vAG_cleavage == "Pao" |
vAG_cleavage == "Rakhine" | vAG_cleavage == "Shan")

## Indicates what percent of the years during the dyad was
## spent in each ideology

vleftist_pctyrs <- round(as.numeric(vLeftist)/as.numeric(vDuration),
3)

vreligious_pctyrs <- round(as.numeric(vReligious)/as.numeric(vDuration),
3)

vlinguistic_pctyrs <- round(as.numeric(vLinguistic)/as.numeric(vDuration),
3)

vtribal_pctyrs <- round(as.numeric(vTribal)/as.numeric(vDuration),
3)

## Indicates if the dyad had at least one year in an ideology
vleftist_filter <- as.numeric(vleftist_pctyrs != 0)
vreligious_filter <- as.numeric(vreligious_pctyrs != 0)
vlinguistic_filter <- as.numeric(vlinguistic_pctyrs != 0)
vtribal_filter <- as.numeric(vtribal_pctyrs != 0)

## Indicates what percent of the years during the dyad was
## spent pursuing certain goals
vmaximalGoals_pctyrs <- round(as.numeric(vmaximalGoals_yrs)/as.numeric(vDuration),
3)
vperipheryGoals_pctyrs <- round(as.numeric(vperipheryGoals_yrs)/as.numeric(vDuration),
3)

## Indicates if the dyad had at least one year pursuing
## certain goals
vmaximalGoals_filter <- as.numeric(vmaximalGoals_pctyrs != 0)
vperipheryGoals_filter <- as.numeric(vperipheryGoals_pctyrs !=
0)

## Indicates what percent of the years during the dyad was
## spent as a non-rebel
vnotRebel_pctyrs <- round(as.numeric(vnotRebel_yrs)/as.numeric(vDuration),
3)

```

Fourth, assemble the matrix of dyads

```

aosaDyads_notParty <- cbind(as.numeric(vDuration), as.numeric(vLLCfiveyr_filter),
  as.numeric(vLLCtenyr_filter), as.numeric(vLLCfiveyr_pctyrs),
  as.numeric(vLLCtenyr_pctyrs), vCountry, vAG_cleavage, as.numeric(vBurmaEthnonational),
  vreligion_spec, as.numeric(vIndiaNortheast), vID_ideology,
  as.numeric(vleftist_pctyrs), as.numeric(vreligious_pctyrs),
  as.numeric(vlinguistic_pctyrs), as.numeric(vtribal_pctyrs),
  as.numeric(vleftist_filter), as.numeric(vreligious_filter),
  as.numeric(vlinguistic_filter), as.numeric(vtribal_filter),
  as.numeric(vmaximalGoals_pctyrs), as.numeric(vperipheryGoals_pctyrs),
  as.numeric(vmaximalGoals_filter), as.numeric(vperipheryGoals_filter),
  as.numeric(vnotRebel_pctyrs))

aosaDyads_notParty <- (data.frame(row.names(aosaDyads_notParty),
  aosaDyads_notParty, row.names = NULL))

colnames(aosaDyads_notParty) <- c("agname", "Dyad_yrs", "LLCfiveyr_filter",
  "LLCtenyr_filter", "LLCfiveyr_pctyrs", "LLCtenyr_pctyrs",
  "Country", "AG_cleavage", "burmaEthnonational", "religion_spec",
  "indiaNortheast", "ID_ideology", "leftist_pctyrs", "religious_pctyrs",
  "linguistic_pctyrs", "tribal_pctyrs", "leftist_filter", "religious_filter",
  "linguistic_filter", "tribal_filter", "maximalGoals_pctyrs",
  "peripheryGoals_pctyrs", "maximalGoals_filter", "peripheryGoals_filter",
  "notRebel_pctyrs")

```

5. Preparation: List of Terminations (Incorporation and Disarmament)

First, we'll perform an initial subset on the `aosa_notParty` dataset:

- Include only terminations in the form of Incorporation (2) or Disarmament (4)

Simultaneously, we will only keep variables that might be useful for analysis.

```

aosaTerm <- aosa_notParty[(aosa_notParty[, "terminateform"] ==
  2 | aosa_notParty[, "terminateform"] == 4), c("agname", "obsyear",
  "terminateform", "Country", "AG_cleavage", "religion_spec",
  "ID_ideology", "aggoals", "aggoals2", "agselfID", "agpolwing",
  "polpar", "pargov", "agillicit", "agtax", "peacedealsonset",
  "peacedealongoing", "ceasefireonset", "ceasefireongoing",
  "amnesty", "LCTenyr_filter", "agextsupport_general", "agextsupport_alleged")]

aosaTerm$terminateform[aosaTerm$terminateform == 2] <- "Incorporation"
aosaTerm$terminateform[aosaTerm$terminateform == 4] <- "Disarmament"

```

Second, we will prepare the list of terminations

```

aosaTerm <- cbind(paste(aosaTerm$agname, " with ", aosaTerm$Country,
  " (", aosaTerm$obsyear, ") - ", aosaTerm$terminateform, sep = ""),
  aosaTerm)

colnames(aosaTerm)[1] <- "Termination"

aosaTerm <- aosaTerm[order(aosaTerm[, "terminateform"], decreasing = FALSE),

```

```
]
```

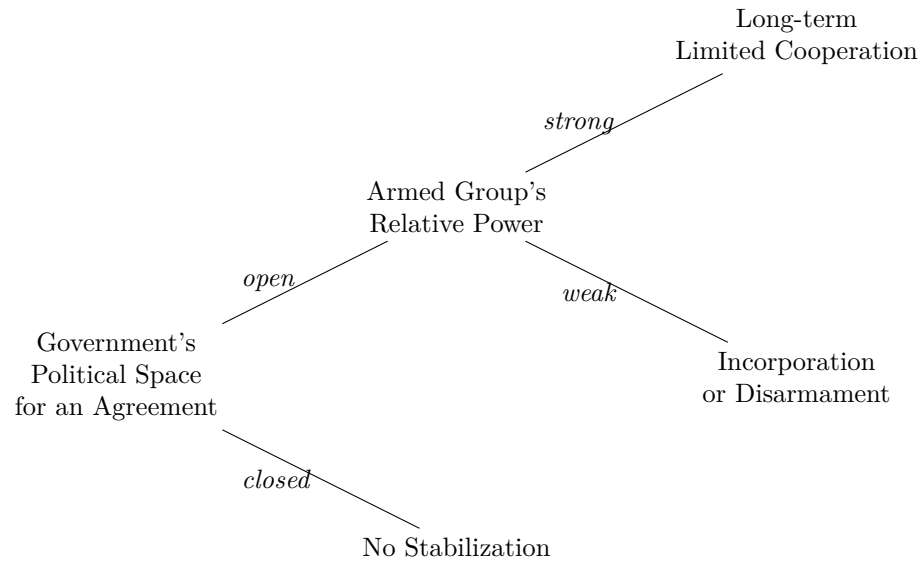
```
(terminations <- aosaTerm$Termination)
```

```
## [1] "AISSF(K) with India (1987) - Disarmament"  
## [2] "AISSF with India (1987) - Disarmament"  
## [3] "ATTF-Tribal with India (1993) - Disarmament"  
## [4] "GA with Myanmar (2001) - Disarmament"  
## [5] "JSD with Bangladesh (1980) - Disarmament"  
## [6] "ABSU with India (1993) - Incorporation"  
## [7] "ANVC with India (2014) - Incorporation"  
## [8] "ANVC-B with India (2014) - Incorporation"  
## [9] "APMSO with Pakistan (1984) - Incorporation"  
## [10] "BLTF with India (2003) - Incorporation"  
## [11] "DHD-J with India (2012) - Incorporation"  
## [12] "DHD-N with India (2012) - Incorporation"  
## [13] "DKBA with Myanmar (2009) - Incorporation"  
## [14] "DNSF with India (1995) - Incorporation"  
## [15] "IKH with India (1997) - Incorporation"  
## [16] "JKLF-I with India (1995) - Incorporation"  
## [17] "JRB with Bangladesh (1975) - Incorporation"  
## [18] "KCP-CM with India (2012) - Incorporation"  
## [19] "KCP-KKN with India (2014) - Incorporation"  
## [20] "KCP-L with India (2013) - Incorporation"  
## [21] "KCP-MCL with India (2011) - Incorporation"  
## [22] "KCP-NK with India (2014) - Incorporation"  
## [23] "KCP-T with India (2012) - Incorporation"  
## [24] "KNDA with Myanmar (1996) - Incorporation"  
## [25] "KNPLF with Myanmar (1994) - Incorporation"  
## [26] "MNF with India (1986) - Incorporation"  
## [27] "MPF with Myanmar (1958) - Incorporation"  
## [28] "NDA-K with Myanmar (2009) - Incorporation"  
## [29] "NNC with India (1975) - Incorporation"  
## [30] "PSLF with Myanmar (2005) - Incorporation"  
## [31] "PULF(UF) with India (2012) - Incorporation"  
## [32] "RGN with India (1973) - Incorporation"  
## [33] "TNV with India (1988) - Incorporation"  
## [34] "UALA with India (2016) - Incorporation"  
## [35] "UPDS with India (2011) - Incorporation"  
## [36] "UPF with India (2014) - Incorporation"  
## [37] "UPPK with India (2013) - Incorporation"  
## [38] "URF with India (2013) - Incorporation"
```

6. Figures

Figure 1: Conflict Stabilization Trajectories

Figure 1: Conflict Stabilization Trajectories



Figures 2 and 4: LLC, Incorporation, and Disarmament Onsets in Myanmar (India)

Yearly LLC onsets (10+ years), by country

```
# Prepare vectors to populate with onsets
```

```
yrvec <- c(1946:2016)
```

```
LLCheights <- c(1:length(yrvec))
```

```
names(LLCheights) <- yrvec
```

```
# India
```

```
for (i in 1:length(yrvec)) {
```

```
  LLCheights[i] <- length(aosaLLC_over10yrs[aosaLLC_over10yrs$LLC_start ==  
    yrvec[i] & aosaLLC_over10yrs$Country == "India", ]$agname)
```

```
}
```

```
LLCStartCount_India <- LLCheights
```

```
# Myanmar
```

```
for (i in 1:length(yrvec)) {
```

```
  LLCheights[i] <- length(aosaLLC_over10yrs[aosaLLC_over10yrs$LLC_start ==  
    yrvec[i] & aosaLLC_over10yrs$Country == "Myanmar", ]$agname)
```

```

}

LLCStartCount_Myanmar <- LLCheights

# Pakistan

## there are only 2 which occur in 2001 and 2002 respectively

# Bangladesh

## none

Yearly incorporations and disarmaments, by country
# Prepare vectors to populate with onsets

yrvec <- c(1946:2016)

Termheights <- c(1:length(yrvec))

names(Termheights) <- yrvec

# India

for (i in 1:length(yrvec)) {

  Termheights[i] <- length(aosaTerm[aosaTerm$obsyear == yrvec[i] &
    aosaTerm$Country == "India", ]$agname)

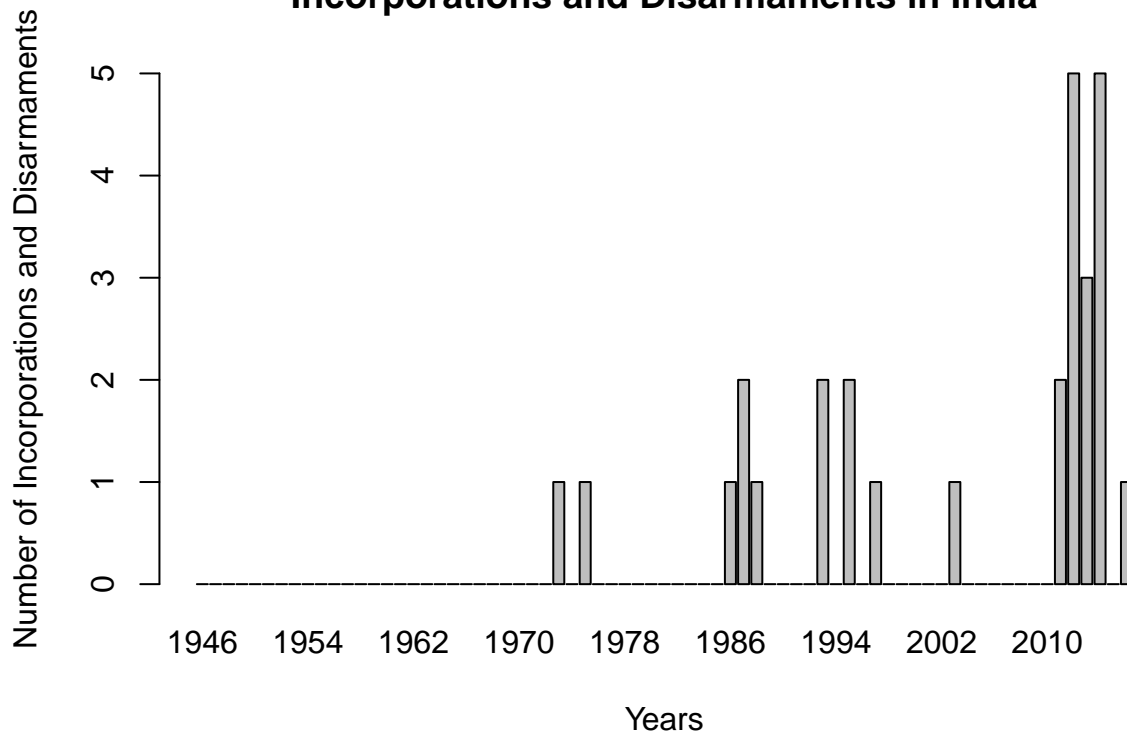
}

TermCount_India <- Termheights

barplot(TermCount_India, main = "Incorporations and Disarmaments in India",
  xlab = "Years", ylab = "Number of Incorporations and Disarmaments",
  ylim = c(0, 5))

```

Incorporations and Disarmaments in India



```
# Myanmar

for (i in 1:length(yrvec)) {

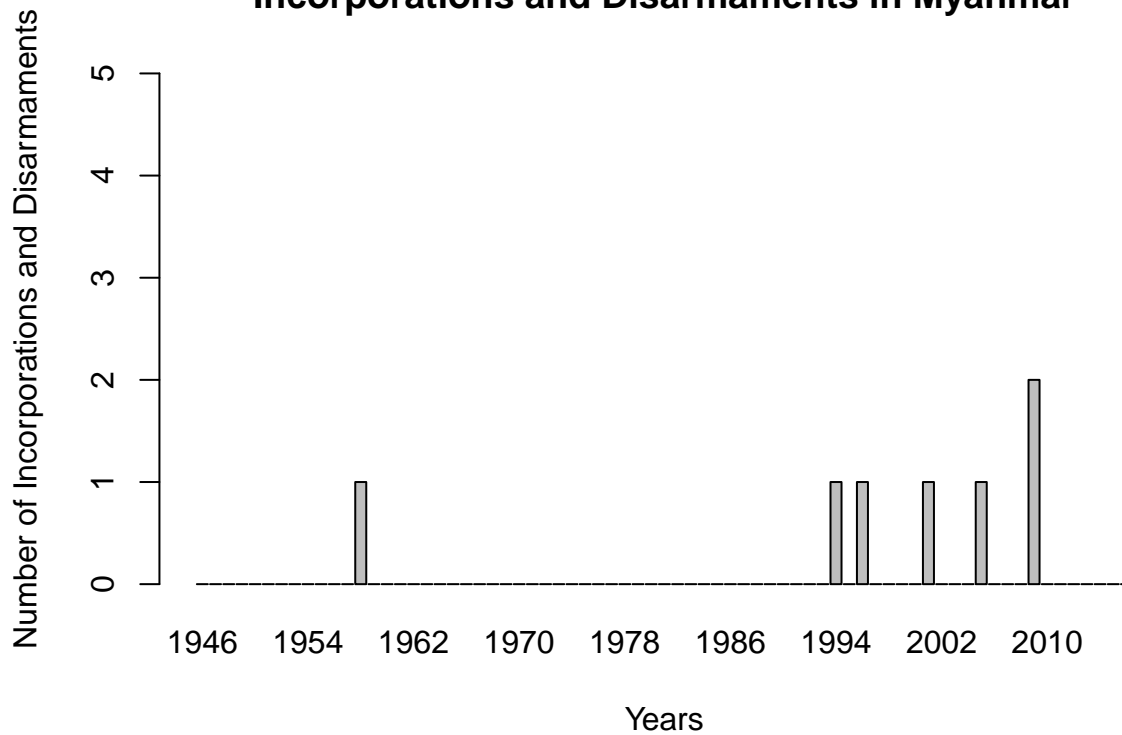
  Termheights[i] <- length(aosaTerm[aosaTerm$obsyear == yrvec[i] &
    aosaTerm$Country == "Myanmar", ]$agname)

}

TermCount_Myanmar <- Termheights

barplot(TermCount_Myanmar, main = "Incorporations and Disarmaments in Myanmar",
  xlab = "Years", ylab = "Number of Incorporations and Disarmaments",
  ylim = c(0, 5))
```

Incorporations and Disarmaments in Myanmar



```
# Pakistan
```

```
## there is only 1 which occurs in 1984
```

```
# Bangladesh
```

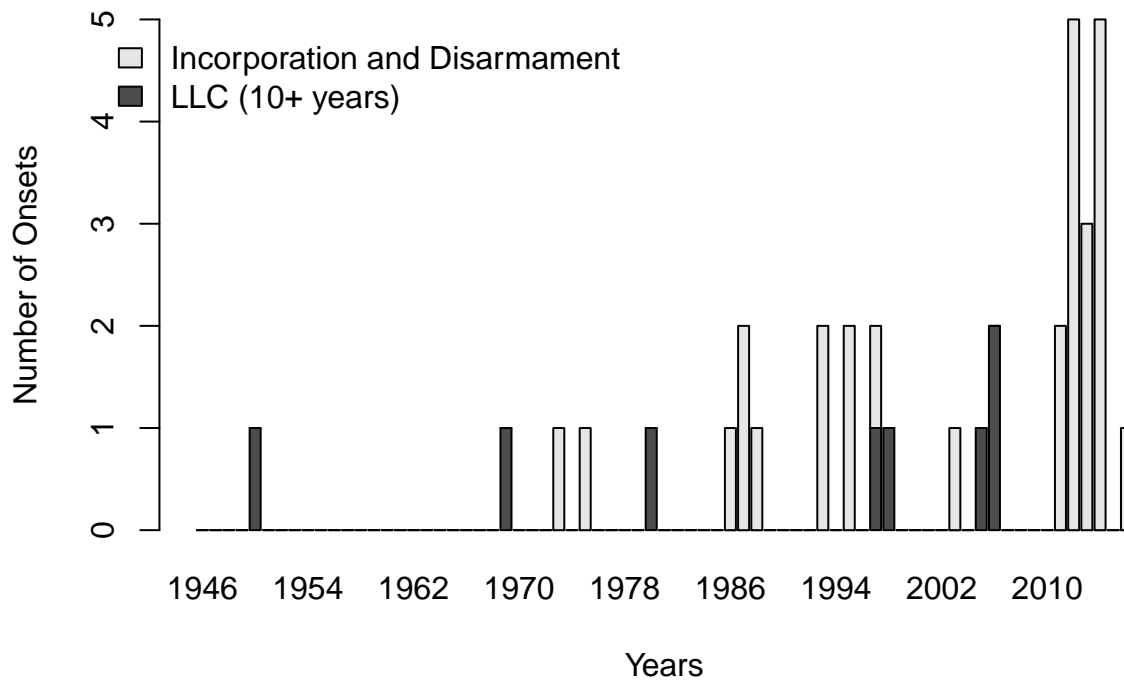
```
## there are only 2 which occur in 1975 and 1980 respectively
```

Onset of both LLCs and Incorporations/Disarmaments for India and Myanmar

```
# India
```

```
barplot(rbind(LLCStartCount_India, TermCount_India), main = "Figure 4: LLC, Incorporation, and Disarmament",  
        xlab = "Years", ylab = "Number of Onsets", ylim = c(0, 5),  
        legend = c("LLC (10+ years)", "Incorporation and Disarmament"),  
        args.legend = list(bty = "n", x = 40, y = 5))
```

Figure 4: LLC, Incorporation, and Disarmament Onsets in India



Myanmar

```
barplot(rbind(LLCStartCount_Myanmar, TermCount_Myanmar), main = "Figure 2: LLC, Incorporation, and Disarmament Onsets in Myanmar",
        xlab = "Years", ylab = "Number of Onsets", ylim = c(0, 5),
        legend = c("LLC (10+ years)", "Incorporation and Disarmament"),
        args.legend = list(bty = "n", x = 40, y = 5))
```

Figure 2: LLC, Incorporation, and Disarmament Onsets in Myanmar

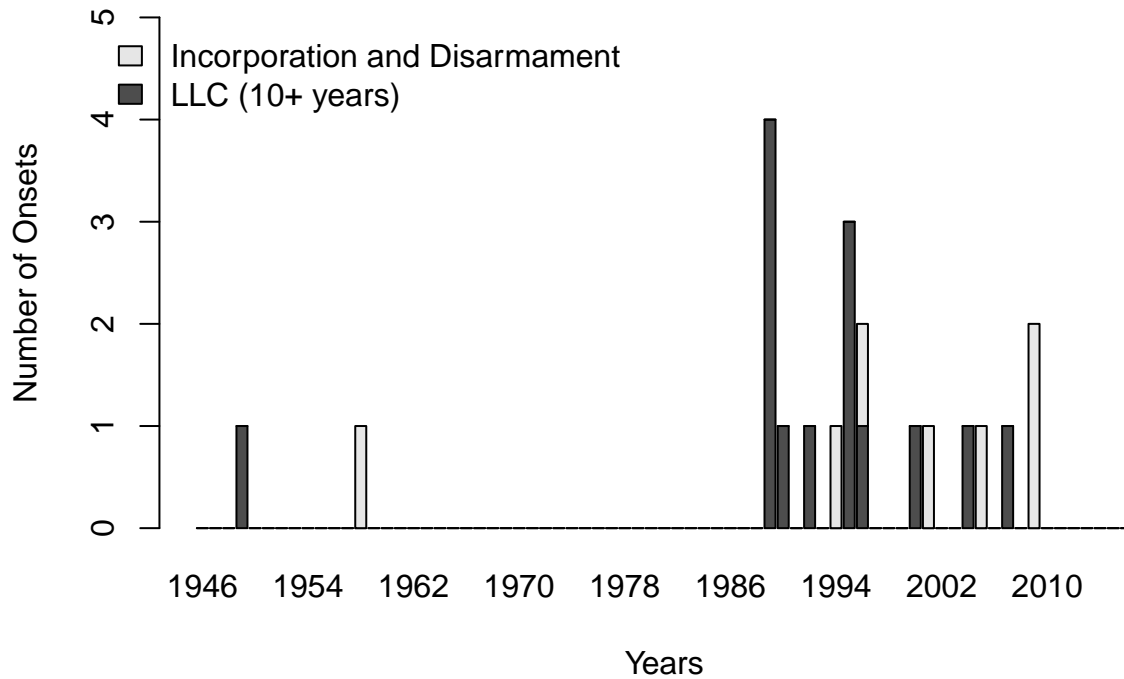
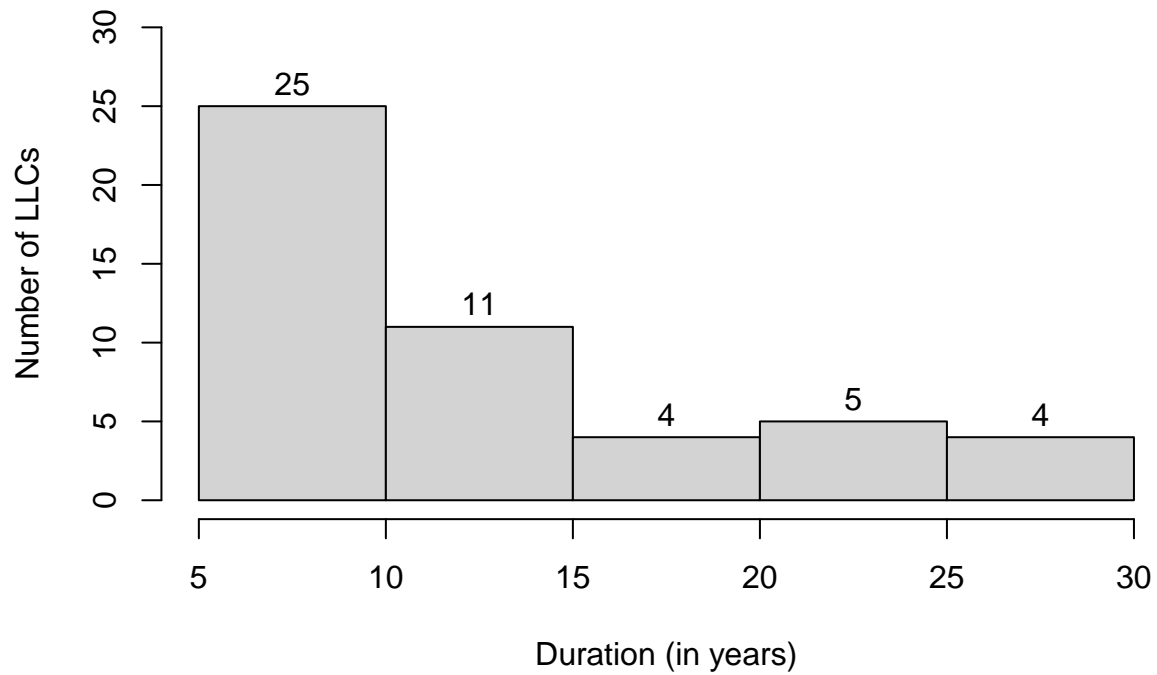


Figure 3: Duration of Long-Term Limited Cooperation

```
aosaLLC_hist <- hist(as.numeric(aosaLLC$LLC_yrs), main = "Figure 3: Duration of Long-Term Limited Cooperation",
  xlab = "Duration (in years)", ylab = "Number of LLCs", ylim = c(0, 30), right = FALSE)

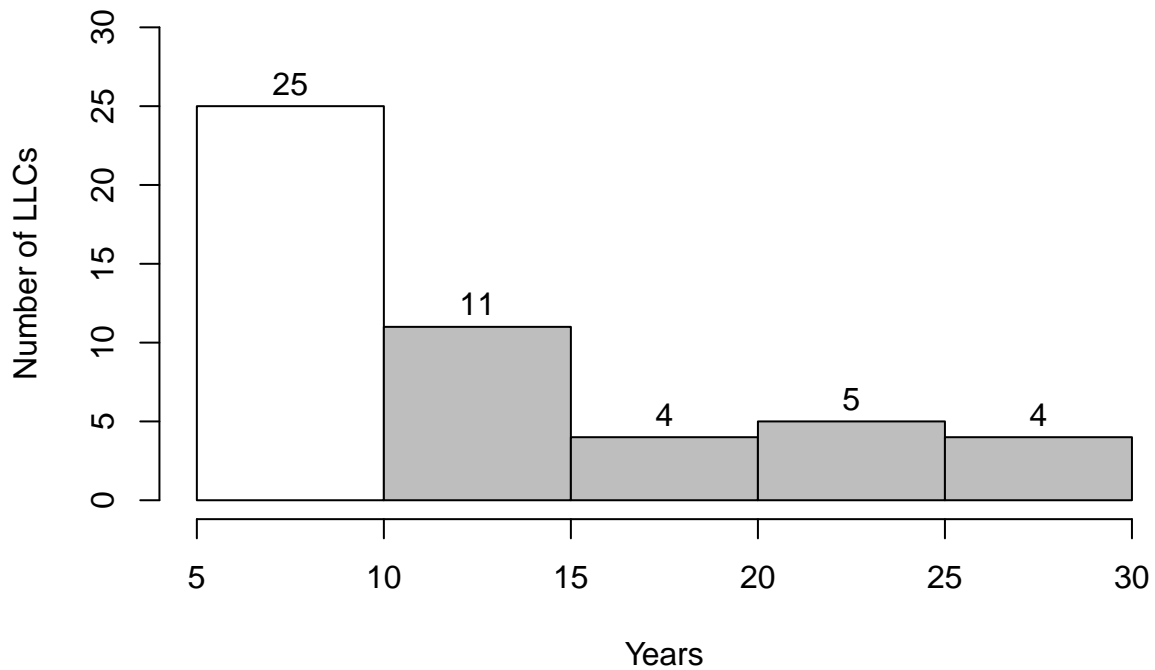
text(aosaLLC_hist$mids, aosaLLC_hist$counts, labels = aosaLLC_hist$counts,
  adj = c(0.5, -0.5))
```

Figure 3: Duration of Long-Term Limited Cooperation



```
aosaLLC_hist <- plot(aosaLLC_hist, col = c("white", "grey")[cut(aosaLLC_hist$breaks,
c(5, 9, 30))], main = "Figure 3: Duration of Long-Term Limited Cooperation",
xlab = "Years", ylab = "Number of LLCs", ylim = c(0, 30),
labels = TRUE)
```

Figure 3: Duration of Long-Term Limited Cooperation



7. Tables

Table 1: Armed Orders in South Asia

“Raw” Dataset:

See section: “1.A. Descriptive statistics of”raw” dataset”

Analyzed Subset:

```
# Earliest year
```

```
min(aosa_notParty$obsyear)
```

```
## [1] 1946
```

```
# Latest year
```

```
max(aosa_notParty$obsyear)
```

```
## [1] 2016
```

```
# Countries
```

```
length(unique(aosa_notParty$Country))
```

```
## [1] 4
```

```

# Dyads
length(unique(aosa_notParty$agname))

## [1] 187
# Dyad-years
length(aosa_notParty$agname)

## [1] 2754
## Total War as % of Dyad-years
round(length(aosa_notParty[aosa_notParty$armedorder == 1, ]$agname)/length(aosa_notParty$agname),
  2)

## [1] 0.15
## Containment as % of Dyad-years
round(length(aosa_notParty[aosa_notParty$armedorder == 2, ]$agname)/length(aosa_notParty$agname),
  2)

## [1] 0.51
## Hostilities as % of Dyad-years
round(length(aosa_notParty[aosa_notParty$armedorder == 3, ]$agname)/length(aosa_notParty$agname),
  2)

## [1] 0.01
## Limited Cooperation as % of Dyad-years
round(length(aosa_notParty[aosa_notParty$armedorder == 4, ]$agname)/length(aosa_notParty$agname),
  2)

## [1] 0.27
## Alliance as % of Dyad-years
round(length(aosa_notParty[aosa_notParty$armedorder == 5, ]$agname)/length(aosa_notParty$agname),
  2)

## [1] 0.06
# Terminations
sum(aosa_notParty$terminate)

## [1] 126
## Collapse as % of Terminations
round(sum(aosa_notParty[aosa_notParty$terminateform == 1, ]$terminate)/sum(aosa_notParty$terminate),
  2)

## [1] 0.6

```

```
## Incorporation as % of Terminations
```

```
round(sum(aosa_notParty[aosa_notParty$terminateform == 2, ]$terminate)/sum(aosa_notParty$terminate),  
2)
```

```
## [1] 0.26
```

```
## Absorption as % of Terminations
```

```
round(sum(aosa_notParty[aosa_notParty$terminateform == 3, ]$terminate)/sum(aosa_notParty$terminate),  
2)
```

```
## [1] 0.07
```

```
## Disarmament as % of Terminations
```

```
round(sum(aosa_notParty[aosa_notParty$terminateform == 4, ]$terminate)/sum(aosa_notParty$terminate),  
2)
```

```
## [1] 0.04
```

```
## Victory as % of Terminations
```

```
round(sum(aosa_notParty[aosa_notParty$terminateform == 5, ]$terminate)/sum(aosa_notParty$terminate),  
2)
```

```
## [1] 0.02
```

```
Anti-State Rebels Sub-subset
```

```
# Earliest year
```

```
min(aosa_notParty[aosa_notParty$agsselfID == 3, ]$obsyear)
```

```
## [1] 1947
```

```
# Latest year
```

```
max(aosa_notParty[aosa_notParty$agsselfID == 3, ]$obsyear)
```

```
## [1] 2016
```

```
# Countries
```

```
length(unique(aosa_notParty[aosa_notParty$agsselfID == 3, ]$Country))
```

```
## [1] 4
```

```
# Dyads
```

```
length(unique(aosa_notParty[aosa_notParty$agsselfID == 3, ]$agname))
```

```
## [1] 125
```

```
# Dyad-years
```

```
length(aosa_notParty[aosa_notParty$agsselfID == 3, ]$agname)
```

```
## [1] 1803
```

```
## Total War as % of Dyad-years
```

```
round(length(aosa_notParty[aosa_notParty$armedorder == 1 & aosa_notParty$agsselfID ==  
3, ]$agname)/length(aosa_notParty[aosa_notParty$agsselfID ==  
3, ]$agname), 2)
```

```
## [1] 0.2
```

```
## Containment as % of Dyad-years
```

```
round(length(aosa_notParty[aosa_notParty$armedorder == 2 & aosa_notParty$agsselfID ==  
3, ]$agname)/length(aosa_notParty[aosa_notParty$agsselfID ==  
3, ]$agname), 2)
```

```
## [1] 0.63
```

```
## Hostilities as % of Dyad-years
```

```
round(length(aosa_notParty[aosa_notParty$armedorder == 3 & aosa_notParty$agsselfID ==  
3, ]$agname)/length(aosa_notParty[aosa_notParty$agsselfID ==  
3, ]$agname), 2)
```

```
## [1] 0.02
```

```
## Limited Cooperation as % of Dyad-years
```

```
round(length(aosa_notParty[aosa_notParty$armedorder == 4 & aosa_notParty$agsselfID ==  
3, ]$agname)/length(aosa_notParty[aosa_notParty$agsselfID ==  
3, ]$agname), 2)
```

```
## [1] 0.15
```

```
## Alliance as % of Dyad-years
```

```
round(length(aosa_notParty[aosa_notParty$armedorder == 5 & aosa_notParty$agsselfID ==  
3, ]$agname)/length(aosa_notParty[aosa_notParty$agsselfID ==  
3, ]$agname), 2)
```

```
## [1] 0
```

```
# Terminations
```

```
sum(aosa_notParty[aosa_notParty$agsselfID == 3, ]$terminate)
```

```
## [1] 77
```

```
## Collapse as % of Terminations
```

```
round(sum(aosa_notParty[aosa_notParty$terminateform == 1 & aosa_notParty$agsselfID ==  
3, ]$terminate)/sum(aosa_notParty[aosa_notParty$agsselfID ==  
3, ]$terminate), 2)
```

```
## [1] 0.65
```

```
## Incorporation as % of Terminations
```

```
round(sum(aosa_notParty[aosa_notParty$terminateform == 2 & aosa_notParty$agsselfID ==  
3, ]$terminate)/sum(aosa_notParty[aosa_notParty$agsselfID ==  
3, ]$terminate), 2)
```

```
## [1] 0.18
```

```
## Absorption as % of Terminations
```

```
round(sum(aosa_notParty[aosa_notParty$terminateform == 3 & aosa_notParty$agselfID ==  
3, ]$terminate)/sum(aosa_notParty[aosa_notParty$agselfID ==  
3, ]$terminate), 2)
```

```
## [1] 0.12
```

```
## Disarmament as % of Terminations
```

```
round(sum(aosa_notParty[aosa_notParty$terminateform == 4 & aosa_notParty$agselfID ==  
3, ]$terminate)/sum(aosa_notParty[aosa_notParty$agselfID ==  
3, ]$terminate), 2)
```

```
## [1] 0.03
```

```
## Victory as % of Terminations
```

```
round(sum(aosa_notParty[aosa_notParty$terminateform == 5 & aosa_notParty$agselfID ==  
3, ]$terminate)/sum(aosa_notParty[aosa_notParty$agselfID ==  
3, ]$terminate), 2)
```

```
## [1] 0.01
```

Table 2: What Share of Dyad-Years had an Armed Group Espouse a Maximal Goal?

All Countries

```
# Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0, ]$maximalGoals)/length(aosa_notParty[aosa_no  
0, ]$maximalGoals), 2)
```

```
## [1] 0.47
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1, ]$maximalGoals)/length(aosa_notParty[aosa_no  
1, ]$maximalGoals), 2)
```

```
## [1] 0.07
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1, ]$maximalGoals)/length(aosa_notParty[aosa_notParty$termFilter ==  
0 & aosa_notParty$terminate == 1, ]$maximalGoals), 2)
```

```
## [1] 0.49
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1, ]$maximalGoals)/length(aosa_notParty[aosa_notParty$termFilter ==  
1 & aosa_notParty$terminate == 1, ]$maximalGoals), 2)
```

```
## [1] 0.16
```

India

```
# Dyad-Years
```

```
# No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0 & aosa_notParty$Country ==  
  "India", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==  
  0 & aosa_notParty$Country == "India", ]$maximalGoals), 2)
```

```
## [1] 0.62
```

```
# Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==  
  "India", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==  
  1 & aosa_notParty$Country == "India", ]$maximalGoals), 2)
```

```
## [1] 0.22
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
  1 & aosa_notParty$Country == "India", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$termFilter  
  0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
  "India", ]$maximalGoals), 2)
```

```
## [1] 0.59
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
  1 & aosa_notParty$Country == "India", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$termFilter  
  1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
  "India", ]$maximalGoals), 2)
```

```
## [1] 0.14
```

Myanmar

```
# Dyad-Years
```

```
# No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0 & aosa_notParty$Country ==  
  "Myanmar", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==  
  0 & aosa_notParty$Country == "Myanmar", ]$maximalGoals),  
  2)
```

```
## [1] 0.38
```

```
# Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==  
  "Myanmar", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==  
  1 & aosa_notParty$Country == "Myanmar", ]$maximalGoals),  
  2)
```

```
## [1] 0
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```

round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==
  1 & aosa_notParty$Country == "Myanmar", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$termFilter ==
  0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
  "Myanmar", ]$maximalGoals), 2)

```

[1] 0.52

```

## Stabilization
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==
  1 & aosa_notParty$Country == "Myanmar", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$termFilter ==
  1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
  "Myanmar", ]$maximalGoals), 2)

```

[1] 0.14

Pakistan

Dyad-Years

No Stabilization

```

round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0 & aosa_notParty$Country ==
  "Pakistan", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
  0 & aosa_notParty$Country == "Pakistan", ]$maximalGoals),
  2)

```

[1] 0.24

Stabilization

```

round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==
  "Pakistan", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
  1 & aosa_notParty$Country == "Pakistan", ]$maximalGoals),
  2)

```

[1] 0

Termination Dyad-Years

No Stabilization

```

round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==
  1 & aosa_notParty$Country == "Pakistan", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$termFilter ==
  0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
  "Pakistan", ]$maximalGoals), 2)

```

[1] 0.25

Stabilization

```

round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==
  1 & aosa_notParty$Country == "Pakistan", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$termFilter ==
  1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
  "Pakistan", ]$maximalGoals), 2)

```

[1] 0

Bangladesh

Dyad-Years

No Stabilization

```

round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0 & aosa_notParty$Country ==
  "Bangladesh", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==

```

```
0 & aosa_notParty$Country == "Bangladesh", ]$maximalGoals),  
2)
```

```
## [1] 0.41
```

```
# Stabilization  
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==  
"Bangladesh", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==  
1 & aosa_notParty$Country == "Bangladesh", ]$maximalGoals),  
2)
```

```
## [1] NaN
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Bangladesh", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$termF  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Bangladesh", ]$maximalGoals), 2)
```

```
## [1] 0.33
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Bangladesh", ]$maximalGoals)/length(aosa_notParty[aosa_notParty$termF  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Bangladesh", ]$maximalGoals), 2)
```

```
## [1] 0.5
```

Table 3: What Share of Dyads or Dyad-Years had an Armed Group with these Characteristics? (India)

Territory Goals

```
# Dyad-Years
```

```
# No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0 & aosa_notParty$Country ==  
"India", ]$peripheryGoals)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==  
0 & aosa_notParty$Country == "India", ]$peripheryGoals),  
2)
```

```
## [1] 0.73
```

```
# Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==  
"India", ]$peripheryGoals)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==  
1 & aosa_notParty$Country == "India", ]$peripheryGoals),  
2)
```

```
## [1] 0.53
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "India", ]$peripheryGoals)/length(aosa_notParty[aosa_notParty$termFilt
```

```
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"India", ]$peripheryGoals), 2)
```

```
## [1] 0.59
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "India", ]$peripheryGoals)/length(aosa_notParty[aosa_notParty$termFilter ==  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"India", ]$peripheryGoals), 2)
```

```
## [1] 0.64
```

North-East

```
# Dyads
```

```
# No Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "India"), ]$indiaNortheast))/length(aosaDyads_notParty[  
0) & as.logical(aosaDyads_notParty$Country == "India"), ]$indiaNortheast),  
2)
```

```
## [1] 0.66
```

```
# Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "India"), ]$indiaNortheast))/length(aosaDyads_notParty[  
1) & as.logical(aosaDyads_notParty$Country == "India"), ]$indiaNortheast),  
2)
```

```
## [1] 0.71
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "India", ]$indiaNortheast)/length(aosa_notParty[aosa_notParty$termFilter ==  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"India", ]$indiaNortheast), 2)
```

```
## [1] 0.39
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "India", ]$indiaNortheast)/length(aosa_notParty[aosa_notParty$termFilter ==  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"India", ]$indiaNortheast), 2)
```

```
## [1] 0.86
```

Leftist ID

```
# Dyads
```

```
# No Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "India"), ]$leftist_filter))/length(aosaDyads_notParty[  
0) & as.logical(aosaDyads_notParty$Country == "India"), ]$leftist_filter),  
2)
```

```
## [1] 0.31
```

```
# Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "India"), ]$leftist_filter))/length(aosaDyads_notParty[  
1) & as.logical(aosaDyads_notParty$Country == "India"), ]$leftist_filter),  
2)
```

```
## [1] 0.29
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "India", ]$leftist)/length(aosa_notParty[aosa_notParty$termFilter ==  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"India", ]$leftist), 2)
```

```
## [1] 0.27
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "India", ]$leftist)/length(aosa_notParty[aosa_notParty$termFilter ==  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"India", ]$leftist), 2)
```

```
## [1] 0.32
```

Religious ID

```
# Dyads
```

```
# No Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "India"), ]$religious_filter))/length(aosaDyads_notParty[  
0) & as.logical(aosaDyads_notParty$Country == "India"), ]$religious_filter),  
2)
```

```
## [1] 0.28
```

```
# Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "India"), ]$religious_filter))/length(aosaDyads_notParty[  
1) & as.logical(aosaDyads_notParty$Country == "India"), ]$religious_filter),  
2)
```

```
## [1] 0.43
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "India", ]$religious)/length(aosa_notParty[aosa_notParty$termFilter ==  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"India", ]$religious), 2)
```

```
## [1] 0.36
```

```
## Stabilization
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==
  1 & aosa_notParty$Country == "India", ]$religious)/length(aosa_notParty[aosa_notParty$termFilter ==
  1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
  "India", ]$religious), 2)
```

[1] 0.11

Ethno-Ling ID

```
# Dyads
```

```
# No Stabilization
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==
  0) & as.logical(aosaDyads_notParty$Country == "India"), ]$linguistic_filter))/length(aosaDyads_notParty[
  0) & as.logical(aosaDyads_notParty$Country == "India"), ]$linguistic_filter),
  2)
```

[1] 0.45

```
# Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==
  1) & as.logical(aosaDyads_notParty$Country == "India"), ]$linguistic_filter))/length(aosaDyads_notParty[
  1) & as.logical(aosaDyads_notParty$Country == "India"), ]$linguistic_filter),
  2)
```

[1] 0.43

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==
  1 & aosa_notParty$Country == "India", ]$linguistic)/length(aosa_notParty[aosa_notParty$termFilter ==
  0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
  "India", ]$linguistic), 2)
```

[1] 0.43

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==
  1 & aosa_notParty$Country == "India", ]$linguistic)/length(aosa_notParty[aosa_notParty$termFilter ==
  1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
  "India", ]$linguistic), 2)
```

[1] 0.39

Tribal ID

```
# Dyads
```

```
# No Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==
  0) & as.logical(aosaDyads_notParty$Country == "India"), ]$tribal_filter))/length(aosaDyads_notParty[
  0) & as.logical(aosaDyads_notParty$Country == "India"), ]$tribal_filter),
  2)
```

[1] 0.38

```
# Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==
```

```

1) & as.logical(aosaDyads_notParty$Country == "India"), ]$tribal_filter))/length(aosaDyads_notParty
1) & as.logical(aosaDyads_notParty$Country == "India"), ]$tribal_filter),
2)

```

```
## [1] 0.71
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```

round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==
1 & aosa_notParty$Country == "India", ]$tribal)/length(aosa_notParty[aosa_notParty$termFilter ==
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
"India", ]$tribal), 2)

```

```
## [1] 0.23
```

```
## Stabilization
```

```

round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==
1 & aosa_notParty$Country == "India", ]$tribal)/length(aosa_notParty[aosa_notParty$termFilter ==
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
"India", ]$tribal), 2)

```

```
## [1] 0.5
```

Number of Observations

```
# Dyads
```

```
## Total
```

```

length(aosaDyads_notParty[as.logical(aosaDyads_notParty$Country ==
"India"), ]$indiaNortheast)

```

```
## [1] 103
```

```
## Stabilization
```

```

length(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==
1) & as.logical(aosaDyads_notParty$Country == "India"), ]$indiaNortheast)

```

```
## [1] 7
```

```
# Dyad-Years
```

```
## Total
```

```

length(aosa_notParty[aosa_notParty$Country == "India", ]$peripheryGoals)

```

```
## [1] 1233
```

```
## Stabilization
```

```

length(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==
"India", ]$peripheryGoals)

```

```
## [1] 130
```

```
# Termination Dyad-Years
```

```
## Total
```

```

length(aosa_notParty[aosa_notParty$terminate == 1 & aosa_notParty$Country ==
"India", ]$peripheryGoals)

```

```
## [1] 72
```

```
## Stabilization
length(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==
  1 & aosa_notParty$Country == "India", ]$peripheryGoals)
```

```
## [1] 28
```

Table 4: What Share of Dyad-Years had a Peace Deal Onset?

All Countries

```
# Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0, ]$peacedealonset)/length(aosa_notParty[aosa_
  0, ]$peacedealonset), 2)
```

```
## [1] 0.01
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1, ]$peacedealonset)/length(aosa_notParty[aosa_
  1, ]$peacedealonset), 2)
```

```
## [1] 0
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==
  1, ]$peacedealonset)/length(aosa_notParty[aosa_notParty$termFilter ==
  0 & aosa_notParty$terminate == 1, ]$peacedealonset), 2)
```

```
## [1] 0
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==
  1, ]$peacedealonset)/length(aosa_notParty[aosa_notParty$termFilter ==
  1 & aosa_notParty$terminate == 1, ]$peacedealonset), 2)
```

```
## [1] 0.32
```

India

```
# Dyad-Years
```

```
# No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0 & aosa_notParty$Country ==
  "India", ]$peacedealonset)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
  0 & aosa_notParty$Country == "India", ]$peacedealonset),
  2)
```

```
## [1] 0.01
```

```
# Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==
  "India", ]$peacedealonset)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
  1 & aosa_notParty$Country == "India", ]$peacedealonset),
  2)
```

```
## [1] 0.01
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "India", ]$peacedealsonset)/length(aosa_notParty[aosa_notParty$termFilter ==  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"India", ]$peacedealsonset), 2)
```

```
## [1] 0
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "India", ]$peacedealsonset)/length(aosa_notParty[aosa_notParty$termFilter ==  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"India", ]$peacedealsonset), 2)
```

```
## [1] 0.39
```

Myanmar

```
# Dyad-Years
```

```
# No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCTenyr_filter == 0 & aosa_notParty$Country ==  
"Myanmar", ]$peacedealsonset)/length(aosa_notParty[aosa_notParty$LCTenyr_filter ==  
0 & aosa_notParty$Country == "Myanmar", ]$peacedealsonset),  
2)
```

```
## [1] 0
```

```
# Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCTenyr_filter == 1 & aosa_notParty$Country ==  
"Myanmar", ]$peacedealsonset)/length(aosa_notParty[aosa_notParty$LCTenyr_filter ==  
1 & aosa_notParty$Country == "Myanmar", ]$peacedealsonset),  
2)
```

```
## [1] 0
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$peacedealsonset)/length(aosa_notParty[aosa_notParty$termFilter ==  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$peacedealsonset), 2)
```

```
## [1] 0
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$peacedealsonset)/length(aosa_notParty[aosa_notParty$termFilter ==  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$peacedealsonset), 2)
```

```
## [1] 0.14
```

Pakistan

```
# Dyad-Years

# No Stabilization
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0 & aosa_notParty$Country ==
  "Pakistan", ]$peacedealonset)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
  0 & aosa_notParty$Country == "Pakistan", ]$peacedealonset),
  2)
```

```
## [1] 0
```

```
# Stabilization
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==
  "Pakistan", ]$peacedealonset)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
  1 & aosa_notParty$Country == "Pakistan", ]$peacedealonset),
  2)
```

```
## [1] 0
```

```
# Termination Dyad-Years
```

```
## No Stabilization
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==
  1 & aosa_notParty$Country == "Pakistan", ]$peacedealonset)/length(aosa_notParty[aosa_notParty$termF
  0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
  "Pakistan", ]$peacedealonset), 2)
```

```
## [1] 0
```

```
## Stabilization
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==
  1 & aosa_notParty$Country == "Pakistan", ]$peacedealonset)/length(aosa_notParty[aosa_notParty$termF
  1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
  "Pakistan", ]$peacedealonset), 2)
```

```
## [1] 0
```

Bangladesh

```
# Dyad-Years
```

```
# No Stabilization
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0 & aosa_notParty$Country ==
  "Bangladesh", ]$peacedealonset)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
  0 & aosa_notParty$Country == "Bangladesh", ]$peacedealonset),
  2)
```

```
## [1] 0.01
```

```
# Stabilization
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==
  "Bangladesh", ]$peacedealonset)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
  1 & aosa_notParty$Country == "Bangladesh", ]$peacedealonset),
  2)
```

```
## [1] NaN
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==
  1 & aosa_notParty$Country == "Bangladesh", ]$peacedealonsset)/length(aosa_notParty[aosa_notParty$termFilter ==
  0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
  "Bangladesh", ]$peacedealonsset), 2)
```

```
## [1] 0
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==
  1 & aosa_notParty$Country == "Bangladesh", ]$peacedealonsset)/length(aosa_notParty[aosa_notParty$termFilter ==
  1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
  "Bangladesh", ]$peacedealonsset), 2)
```

```
## [1] 0
```

Table 5: QCA of Incorporation and Disarmament Observations

Formed from the case studies (see the Appendix)

Table 6: What Share of Dyad-Years had an Ongoing Ceasefire?

All Countries

```
# Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0 & aosa_notParty$ceasefireongoing !=
  -999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
  0 & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==
  FALSE, ]$ceasefireongoing), 2)
```

```
## [1] 0.1
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$ceasefireongoing !=
  -999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
  1 & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==
  FALSE, ]$ceasefireongoing), 2)
```

```
## [1] 0.62
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==
  1 & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==
  FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$termFilter ==
  0 & aosa_notParty$terminate == 1 & aosa_notParty$ceasefireongoing !=
  -999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing),
  2)
```

```
## [1] 0.09
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==
  1 & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==
  FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$termFilter ==
  1 & aosa_notParty$terminate == 1 & aosa_notParty$ceasefireongoing !=
```

```
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing),  
2)
```

```
## [1] 0.49
```

India

```
# Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCTenyr_filter == 0 & aosa_notParty$Country ==  
"India" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==  
FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$LCTenyr_filter ==  
0 & aosa_notParty$Country == "India" & aosa_notParty$ceasefireongoing !=  
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing),  
2)
```

```
## [1] 0.11
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCTenyr_filter == 1 & aosa_notParty$Country ==  
"India" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==  
FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$LCTenyr_filter ==  
1 & aosa_notParty$Country == "India" & aosa_notParty$ceasefireongoing !=  
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing),  
2)
```

```
## [1] 0.44
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "India" & aosa_notParty$ceasefireongoing !=  
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"India" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==  
FALSE, ]$ceasefireongoing), 2)
```

```
## [1] 0.09
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "India" & aosa_notParty$ceasefireongoing !=  
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"India" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==  
FALSE, ]$ceasefireongoing), 2)
```

```
## [1] 0.57
```

Myanmar

```
# Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCTenyr_filter == 0 & aosa_notParty$Country ==  
"Myanmar" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==  
FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$LCTenyr_filter ==
```

```
0 & aosa_notParty$Country == "Myanmar" & aosa_notParty$ceasefireongoing !=
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing),
2)
```

```
## [1] 0.06
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==
"Myanmar" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==
FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
1 & aosa_notParty$Country == "Myanmar" & aosa_notParty$ceasefireongoing !=
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing),
2)
```

```
## [1] 0.78
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==
1 & aosa_notParty$Country == "Myanmar" & aosa_notParty$ceasefireongoing !=
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
"Myanmar" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==
FALSE, ]$ceasefireongoing), 2)
```

```
## [1] 0.05
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==
1 & aosa_notParty$Country == "Myanmar" & aosa_notParty$ceasefireongoing !=
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==
"Myanmar" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==
FALSE, ]$ceasefireongoing), 2)
```

```
## [1] 0.33
```

```
Pakistan
```

```
# Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0 & aosa_notParty$Country ==
"Pakistan" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==
FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
0 & aosa_notParty$Country == "Pakistan" & aosa_notParty$ceasefireongoing !=
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing),
2)
```

```
## [1] 0.12
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==
"Pakistan" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==
FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==
1 & aosa_notParty$Country == "Pakistan" & aosa_notParty$ceasefireongoing !=
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing),
```

2)

```
## [1] 0
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Pakistan" & aosa_notParty$ceasefireongoing !=  
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Pakistan" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==  
FALSE, ]$ceasefireongoing), 2)
```

```
## [1] 0.15
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Pakistan" & aosa_notParty$ceasefireongoing !=  
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Pakistan" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==  
FALSE, ]$ceasefireongoing), 2)
```

```
## [1] 0
```

Bangladesh

```
# Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0 & aosa_notParty$Country ==  
"Bangladesh" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==  
FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==  
0 & aosa_notParty$Country == "Bangladesh" & aosa_notParty$ceasefireongoing !=  
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing),  
2)
```

```
## [1] 0.18
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==  
"Bangladesh" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==  
FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==  
1 & aosa_notParty$Country == "Bangladesh" & aosa_notParty$ceasefireongoing !=  
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing),  
2)
```

```
## [1] NaN
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Bangladesh" & aosa_notParty$ceasefireongoing !=  
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Bangladesh" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==
```

```
FALSE, ]$ceasefireongoing), 2)
```

```
## [1] 0
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Bangladesh" & aosa_notParty$ceasefireongoing !=  
-999 & is.na(aosa_notParty$ceasefireongoing) == FALSE, ]$ceasefireongoing)/length(aosa_notParty[aosa_  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Bangladesh" & aosa_notParty$ceasefireongoing != -999 & is.na(aosa_notParty$ceasefireongoing) ==  
FALSE, ]$ceasefireongoing), 2)
```

```
## [1] 0
```

Table 7: QCA of Long-Term Limited Cooperation Observations

Formed from the case studies (see the Appendix)

Table 8: What Share of Dyads or Dyad-Years had an Armed Group with these Characteristics? (Myanmar)

Territory Goals

```
# Dyad-Years
```

```
# No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 0 & aosa_notParty$Country ==  
"Myanmar", ]$peripheryGoals)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==  
0 & aosa_notParty$Country == "Myanmar", ]$peripheryGoals),  
2)
```

```
## [1] 0.76
```

```
# Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$LCtenyr_filter == 1 & aosa_notParty$Country ==  
"Myanmar", ]$peripheryGoals)/length(aosa_notParty[aosa_notParty$LCtenyr_filter ==  
1 & aosa_notParty$Country == "Myanmar", ]$peripheryGoals),  
2)
```

```
## [1] 0.94
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$peripheryGoals)/length(aosa_notParty[aosa_notParty$termFi_  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$peripheryGoals), 2)
```

```
## [1] 0.81
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$peripheryGoals)/length(aosa_notParty[aosa_notParty$termFi_  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$peripheryGoals), 2)
```

```
## [1] 0.57
```

Ethno-National

```
# Dyads
```

```
# No Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$burmaEthnonational))/length(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$burmaEthnonational), 2)
```

```
## [1] 0.81
```

```
# Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$burmaEthnonational))/length(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$burmaEthnonational), 2)
```

```
## [1] 0.79
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$burmaEthnonational)/length(aosa_notParty[aosa_notParty$te  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$burmaEthnonational), 2)
```

```
## [1] 0.67
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$burmaEthnonational)/length(aosa_notParty[aosa_notParty$te  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$burmaEthnonational), 2)
```

```
## [1] 1
```

Leftist ID

```
# Dyads
```

```
# No Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$leftist_filter))/length(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$leftist_filter), 2)
```

```
## [1] 0.19
```

```
# Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$leftist_filter))/length(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$leftist_filter), 2)
```

```
## [1] 0.36
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$leftist)/length(aosa_notParty[aosa_notParty$termFilter ==  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$leftist), 2)
```

```
## [1] 0.19
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$leftist)/length(aosa_notParty[aosa_notParty$termFilter ==  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$leftist), 2)
```

```
## [1] 0.29
```

```
Religious ID
```

```
# Dyads
```

```
# No Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$religious_filter))/length(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$religious_filter), 2)
```

```
## [1] 0.19
```

```
# Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$religious_filter))/length(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$religious_filter), 2)
```

```
## [1] 0
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$religious)/length(aosa_notParty[aosa_notParty$termFilter ==  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$religious), 2)
```

```
## [1] 0.1
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$religious)/length(aosa_notParty[aosa_notParty$termFilter ==  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$religious), 2)
```

```
## [1] 0.29
```

Ethno-Ling ID

```
# Dyads
```

```
# No Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$linguistic_filter))/length(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$linguistic_filter), 2)
```

```
## [1] 0.74
```

```
# Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$linguistic_filter))/length(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$linguistic_filter), 2)
```

```
## [1] 0.71
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$linguistic)/length(aosa_notParty[aosa_notParty$termFilter  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$linguistic), 2)
```

```
## [1] 0.62
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$linguistic)/length(aosa_notParty[aosa_notParty$termFilter  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$linguistic), 2)
```

```
## [1] 0.71
```

Tribal ID

```
# Dyads
```

```
# No Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$tribal_filter))/length(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
0) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$tribal_filter), 2)
```

```
## [1] 0.37
```

```
# Stabilization
```

```
round(sum(as.numeric(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$tribal_filter))/length(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$tribal_filter), 2)
```

```
## [1] 0.36
```

```
# Termination Dyad-Years
```

```
## No Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 0 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$tribal)/length(aosa_notParty[aosa_notParty$termFilter ==  
0 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$tribal), 2)
```

```
## [1] 0.14
```

```
## Stabilization
```

```
round(sum(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$tribal)/length(aosa_notParty[aosa_notParty$termFilter ==  
1 & aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$tribal), 2)
```

```
## [1] 0.86
```

```
Number of Observations
```

```
# Dyads
```

```
## Total
```

```
length(aosaDyads_notParty[as.logical(aosaDyads_notParty$Country ==  
"Myanmar"), ]$burmaEthnonational)
```

```
## [1] 41
```

```
## Stabilization
```

```
length(aosaDyads_notParty[as.logical(aosaDyads_notParty$LLCtenyr_filter ==  
1) & as.logical(aosaDyads_notParty$Country == "Myanmar"),  
]$burmaEthnonational)
```

```
## [1] 14
```

```
# Dyad-Years
```

```
## Total
```

```
length(aosa_notParty[aosa_notParty$Country == "Myanmar", ]$peripheryGoals)
```

```
## [1] 945
```

```
## Stabilization
```

```
length(aosa_notParty[aosa_notParty$LLCtenyr_filter == 1 & aosa_notParty$Country ==  
"Myanmar", ]$peripheryGoals)
```

```
## [1] 247
```

```
# Termination Dyad-Years
```

```
## Total
```

```
length(aosa_notParty[aosa_notParty$terminate == 1 & aosa_notParty$Country ==  
"Myanmar", ]$peripheryGoals)
```

```
## [1] 28
```

```
## Stabilization
```

```
length(aosa_notParty[aosa_notParty$termFilter == 1 & aosa_notParty$terminate ==  
1 & aosa_notParty$Country == "Myanmar", ]$peripheryGoals)
```

```
## [1] 7
```

8. Other Queries and Calculations

8.A. Terminations coinciding with LLCs

```
# List of Incorporations and Disarmaments that coincide with  
# LLCs
```

```
aosaTerm[aosaTerm$LCTenyr_filter == 1, ]
```

```
##                               Termination agname obsyear terminateform  
## 141      ANVC with India (2014) - Incorporation  ANVC      2014 Incorporation  
## 2176 PSLF with Myanmar (2005) - Incorporation  PSLF      2005 Incorporation  
##      Country AG_cleavage religion_spec ID_ideology aggoals aggoals2 agselfID  
## 141      India      Achik      Northeast      tribal      2      0      4  
## 2176 Myanmar      Palaung      <NA>      tribal      2      4      3  
##      agpolwing polpar pargov agillicit agtax peacedealonsset peacedealongoing  
## 141      0      0      0      0      0      0      0  
## 2176      1      3      1      -999      1      0      0  
##      ceasefireonset ceasefireongoing amnesty LCTenyr_filter  
## 141      0      0      0      1  
## 2176      0      0      0      1  
##      agextsupport_general agextsupport_alleged  
## 141      0      0  
## 2176      0      0
```

```
# List of LLCs that ended in some form of termination
```

```
aosaLLC[aosaLLC$terminations == 1, ]
```

```
##                               LLC      agname LLC_yrs LLC_start  
## 3      ANVC and India (2005-2014)      ANVC      10      2005  
## 4      APMSO and Pakistan (1978-1984)      APMSO      7      1978  
## 9      DHD-N and India (2004-2012)      DHD-N      9      2004  
## 11     HuM-Pakistan and Pakistan (2001-2012) HuM-Pakistan 12      2001  
## 24     MNF and India (1981-1986)      MNF      6      1981  
## 40     PSLF and Myanmar (1992-2005)      PSLF      14      1992  
## 46     SSNLO and Myanmar (1995-2007)      SSNLO      13      1995  
## 50     UPDS and India (2003-2011)      UPDS      9      2003  
## 51     UPF and India (2008-2014)      UPF      7      2008  
## 451    Khun Sa Group and Myanmar (1962-1968) Khun Sa Group 7      1962  
##      LLC_end Country      AG_cleavage religion_spec      ID_ideology  
## 3      2014      India      Achik      Northeast      tribal  
## 4      1984      Pakistan      Karachi      NA      linguistic  
## 9      2012      India      Dimasa      Northeast      linguistic-tribal  
## 11     2012      Pakistan      Kashmir      NA      religious  
## 24     1986      India      Mizo      Northeast      linguistic-tribal  
## 40     2005      Myanmar      Palaung      NA      tribal  
## 46     2007      Myanmar      Pao      NA      leftist-linguistic  
## 50     2011      India      Karbi      Northeast      linguistic  
## 51     2014      India      Kuki      Northeast      tribal  
## 451    1968      Myanmar Criminal (Myanmar)      NA      none  
##      maximalGoals_yrs peripheryGoals_yrs notParty_yrs notRebel_yrs agpolwing_yrs
```

## 3	0	10	10	10	0
## 4	0	0	7	7	7
## 9	0	9	9	9	0
## 11	0	0	12	12	0
## 24	0	6	6	0	0
## 40	0	14	14	0	14
## 46	0	13	13	0	0
## 50	0	9	9	0	0
## 51	0	7	7	7	0
## 451	0	0	7	7	0
##	formalPolpar_yrs	somePargov_yrs	agillicit_yrs	agtax_yrs	peacedealonsets
## 3	0	0	0	0	0
## 4	7	0	0	0	0
## 9	0	0	0	0	1
## 11	0	0	0	0	0
## 24	0	0	0	6	1
## 40	14	0	0	14	0
## 46	0	0	0	0	0
## 50	0	0	0	9	1
## 51	0	0	0	0	0
## 451	0	0	7	0	0
##	peacedeal_yrs	ceasefireonsets	ceasefire_yrs	amnesty_yrs	terminations
## 3	0	0	0	0	1
## 4	0	0	0	0	1
## 9	1	0	9	0	1
## 11	0	0	0	0	1
## 24	1	0	6	0	1
## 40	0	0	0	0	1
## 46	0	1	13	0	1
## 50	1	0	9	0	1
## 51	0	1	7	0	1
## 451	0	0	0	0	1
##	supportGen_yrs	supportAlg_yrs			
## 3	0	0			
## 4	0	0			
## 9	0	0			
## 11	0	0			
## 24	0	0			
## 40	0	0			
## 46	0	13			
## 50	0	9			
## 51	0	0			
## 451	0	0			